



Dedicated to Mine Land Reclamation, Conservation, & Economic Development in the Wyoming Valley

January 31, 2019

Ms. Felicia Fred, Brownfield Coordinator
Environmental Protection Agency, Region 3
1650 Arch Street | Mail Code 3HS51
Philadelphia, PA 19103

RE: FY2019 U.S. EPA Brownfields Cleanup Grant Proposal
Bliss Bank Reclamation, Phase V – Hanover Township, Luzerne County, PA

Ms. Fred:

Please find attached Earth Conservancy's (EC) application to the United States Environmental Protection Agency (USEPA) for a \$500,000 Brownfields Cleanup grant for reclamation of Bliss Bank, Phase V, in Hanover Township, Luzerne County, Pennsylvania.

Bliss Bank, which is located across the road from Luzerne County Community College and adjacent to a neighborhood, encompasses over 200 acres of mine-scarred land. Its previous owner, the now-bankrupt Blue Coal Corporation, had deep-mined and strip-mined the site, and then used it to hold coal waste. These activities damaged the land extensively, leaving behind towering, barren piles of spoils and deep, water-filled pits. Hydrology in the area was also destroyed, and continuing erosion and sedimentation exacerbates watershed problems, including the production of acid mine drainage.

EC was founded with the mission of restoring mine-scarred lands in the region to productive reuse. The Bliss Bank project is part of a larger plan to recover over 1,500 acres running along Wilkes-Barre Mountain. We have already made substantial progress toward this end: Reclamation of Phase I has been completed; Phase II is anticipated to be finished this spring. Engineering design for Phase III is underway. Espy Run, a stream that formerly went through the site, is also in the process of being restored. All of these brownfield cleanup projects have received support from USEPA.

As required in the proposal guidelines, EC provides the following information to USEPA:

1. **Applicant Identification:** Earth Conservancy; 101 South Main Street, Ashley, PA 18706; 570.823.3445/p; 570.823.8270/f; www.earthconservancy.org; DUNS #807365705
2. **Funding Requested**
 - a. **Grant Type:** Single Site Cleanup
 - b. **Federal Funds Requested**
 - i. **Amount Requested:** \$500,000
 - ii. **Cost Share:** No cost share waiver requested
 - c. **Contamination:** Mine-Scarred Land/Acid Mine Drainage
3. **Location**
 - a. **City:** Hanover Township

- b. **County:** Luzerne County
- c. **State:** Pennsylvania

4. **Property Information:** Approximate center of Phase V site = 41.182152°, -75.985435°

5. **Contacts**

- a. **Project Director:** Geoffrey D. Shaw; 570.823.3445; g.shaw@earthconservancy.org;
101 South Main Street, Ashley, PA 18706
- b. **Chief Executive:** Michael A. Dziak; 570.823.3445; m.dziak@earthconservancy.org;
101 South Main Street, Ashley, PA 18706

6. **Population:** EC is a nonprofit 501(c)(3) organization, serving a county population of 318,222. Bliss Bank, Phase V, is located in Hanover Township, population 10,980.

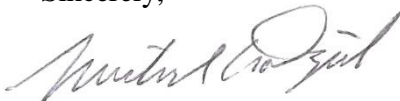
7. **Other Factors Checklist**

Other Factors	Page #
Community population is 10,000 or less.	
Applicant is, or will assist, a federally recognized Indian tribe or United States territory.	
The proposed brownfield site is impacted by mine-scarred land.	p. 1+
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/redevelopment; secured resource is identified in the Narrative and substantiated in the attached documentation.	
The proposed site(s) is adjacent to a body of water (i.e., the border of the site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	p. 1, 3
The proposed site(s) is in a federally designated flood plain.	
The redevelopment of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or any energy efficiency improvement projects.	

8. **Letter from State Environmental Authority:** A current letter of acknowledgement from the Director of the Pennsylvania Department of Environmental Protection's Bureau of Environmental Cleanup & Brownfields is included herein as Attachment A.

EC can bring together the partners and resources necessary to complete reclamation of Bliss Bank, Phase V. As noted, it is one piece of a larger plan, one that seeks to create a more livable community now, and clears the way for positive, progressive change for future generations. We appreciate your time and consideration in reviewing this Brownfields Cleanup application, and look forward to continuing our mission to revitalizing the South Valley through our reclamation work in partnership with USEPA.

Sincerely,



Michael A. Dziak
President and CEO



December 11, 2018

Mr. Michael A. Dziak, President & CEO
Earth Conservancy
101 South Main Street
Ashley, PA 18706

RE: USEPA Brownfields Cleanup Proposal | State Letter of Acknowledgement
Bliss Bank Reclamation, Phase V
Hanover Township, Luzerne County, Pennsylvania

Mr. Dziak:

The Pennsylvania Department of Environmental Protection (DEP) is pleased to support your efforts to redevelop brownfield properties in your community. Returning underutilized lands to productive use improves our environment, safeguards our residents, and helps boost Pennsylvania's economy.

The DEP supports Earth Conservancy's application for a \$500,000 Brownfields Cleanup Grant from the United States Environmental Protection Agency (USEPA) for Phase V of its ongoing Bliss Bank Reclamation Project. These funds will be used to reclaim approximately 30 acres of mine-scarred land in Hanover Township, Pennsylvania.

Earth Conservancy's work to re-examine and restore lands damaged by historic mining practices adds to the revitalization of communities in the northeast region. It creates renewed neighborhoods and business districts in Pennsylvania and is a worthwhile endeavor. Both Central Office and Regional Office Staff in the Land Recycling Program look forward to supporting Earth Conservancy and USEPA Region 3 on this project.

If you have any questions, please contact John Gross by email at johngross@pa.gov or by telephone at 717-783-7502.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Conrad".

Troy Conrad
Director
Bureau Environmental Cleanups and Brownfields

Narrative/Ranking Criteria

Including

Attachment A: Documentation of Leveraged Resources (1 page)

SECTION 1 | PROJECT AREA DESCRIPTION & PLANS FOR REVITALIZATION

1.a. Target Area and Brownfields

1.a.i. Background & Description of Target Area: Along the Susquehanna River in Luzerne County, Pennsylvania, are a collection of towns and boroughs clustered around the small city of Nanticoke (population 10,296). Collectively known as the South Valley, the area, like many within Pennsylvania's anthracite fields, flourished with the rise of the coal industry. Anthracite was an efficient fuel source, becoming crucial in the Industrial Revolution. At its height, over 100 million tons of coal were culled annually from the region.¹ Locally, this clout was magnified. Coal not only controlled the area's economy; it affected residents' entire way of life. Companies built towns around each colliery, keeping employees steps away from work. They also subsidized local businesses, financed banks, and owned associated industries like railroads and ironworks. In the South Valley, over 20 collieries operated within a 2.5-mile radius of Nanticoke.²

After World War II, however, the need for anthracite declined. This, coupled with the deadly Knox Mine Disaster in 1959, led to the industry's end locally. Company doors were closed and bankruptcies announced. Mining in the anthracite region, having once "employed 175,000 men and directly supported a population of about 1 million," dwindled to some "1,400 workers, supporting an overall population of perhaps 5,000" by 1992.³

The South Valley can be proud of its mining heritage. Mining fueled America's Industrial Revolution, and the industry attracted and provided for thousands in the region. Nevertheless, the environmental and economic landscape left at the end of the coal era was grim. When the companies closed, operations were abandoned entirely, leaving a patchwork of towns abutting thousand-acre stretches of coal waste and stripping pits, and waterways destroyed or turned orange with acid mine drainage. **Bliss Bank represents over 200 acres of land impaired by historic mining activity.** Earth Conservancy (EC) is seeking a Brownfields Cleanup grant from the U.S. Environmental Protection Agency (USEPA) to reclaim 30 acres of Bliss Bank (i.e., "Phase V") to address its environmental damages and the economic decline it generates.

1.a.ii. Description of the Brownfield Site: Bliss Bank's degraded condition has resulted from historic anthracite mining on the site. Originally, the Bliss Bank property was owned by the Blue Coal Corporation, which used the site for deep-mining, strip-mining, and to hold mining waste. When the company declared bankruptcy in the 1970s, the site was left ravaged: a 200-acre stretch of massive culm banks, artificial ridges, and deep pits, on which little more than feeble trees and scraggly brush could grow. Mining operations also disrupted local hydrology. The channel of Espy Run (adjacent to Phase V) was destroyed; the spoil piles continue to erode, generating acid mine drainage (AMD). Surrounding waters now show elevated concentrations of metals and a lower than normal pH. AMD makes the water more than impotable; it coats streambed surfaces, destroys habitat, and poisons aquatic life.

This bleak and barren mountain has loomed over the landscape for decades. Because of its abandoned and degraded condition, it is perceived negatively by many. Unfortunately, such devaluing correlates with increased abuse to the property. Off-roading, vandalism, illegal dumping, and fire-setting all exacerbate mining damages and add stress to an already-disturbed wildlife. Passive recreational enjoyment of the area is near impossible. Within ¼-mile of the Phase V border

¹ Adams, S.P. (2010). The U.S. Coal Industry in the Nineteenth Century. In R. Whaples (Ed.), *EH.Net Encyclopedia*.

² Metzger, B. (2008, April). Pennsylvania's Northern Anthracite Coal Field, ca. 1939 [map]. *Trains Magazine*.

³ Dublin, T. (1998). *When the Mines Closed: Stories of Struggles in Hard Times*. Ithaca, NY: Cornell UP.

is most of the Hanover section of Nanticoke. The nearest house is only 403 feet away. The site also abuts a large recreational area, which includes a park, tennis courts, and ballfields. Within ½-mile is the rest of the Hanover neighborhood, a nursing home, and part of Luzerne County Community College's (LCCC) campus. Additional mine-scarred land extends thousands of acres to the east.

1.b. Revitalization of the Target Area

1.b.i. Redevelopment Strategy & Alignment with Revitalization Plans: After its formation, EC initiated several land use planning initiatives, unprecedented at the time in Luzerne County. Each focused on a different aspect of redevelopment. All incorporated environmental, economic, and social best management practices (BMPs). These plans continue to guide EC's work today.

- Foremost, is EC's initial *Land Use Plan (LUP)* (1996), which evaluated the Blue Coal lands to establish reclamation priorities and the most responsible course for development. The *LUP* designated 2,800 acres for residential development; 2,200 acres for industry and commerce; and 10,000 acres for green/recreational space.
- The *Lower Wyoming Valley Open Space Master Plan* (1999) followed, delineating potential uses for the 10,000 acres earmarked for green/recreational space in the *LUP*.
- Most recently, EC commissioned the *Master Plan for Bliss, Truesdale, Warrior Run, and Sugar Notch* (2018), which sought to delineate potential uses and infrastructure needs for 2,000 acres of land, beginning at the Bliss site. A second plan followed, further analyzing Bliss Bank and the adjacent Truesdale Bank. The Phase V project resulted from this study.

Bliss Bank's reclamation fulfills USEPA's mission of delivering "real results to provide Americans with clean air, land, and water."⁴ The project will "revitalize land and prevent contamination" (Objective 1.3) and will "provide for clean and safe water" (Objective 1.2) by reducing discharge of pollutants (i.e., AMD) into the watershed. The Phase V project also supports equitable and sustainable living in the oft-neglected South Valley. EC's early planning efforts tagged Bliss Bank as an appealing infill opportunity, close to utilities, transit, and Nanticoke's core. Generally, brownfield cleanup that incorporates thoughtful redevelopment exemplifies a strategy of sustainability, consistent with the Livability Principles of USHUD-USDOT-USEPA's Partnership for Sustainable Communities. EC's work epitomizes this, with smart-growth plans featuring mixed-use designs that build on existing assets and consolidate and preserve areas to live, work, and play. Reclaiming the site also reduces the chance for sprawl, allowing the community to meet developmental needs without destroying wild lands (or the carbon-reducing benefits they provide).

1.b.ii. Outcomes & Benefits of Redevelopment Strategy: EC's planning efforts and project record demonstrate a commitment to a "triple bottom line," i.e., a desire to improve the environment, economy, and the region's quality of life. The Bliss Bank project supports all three. First, the environment will be repaired. Phase V will reshape the irregular terrain, correct disturbed hydrology, impede erosion and sedimentation (E&S), and restore damaged habitat. EC has already undertaken several projects to improve conditions, including four other phases of reclamation and reconstruction of 4,500 feet of stream. USEPA has been a steadfast supporter of this work.

Second, repairing Bliss Bank will recover currently unusable lands for redevelopment. Since the site is slated for mixed-use, precise economic effects are unknown. However, development on other EC tracts confirms our work does benefit the economy, creating jobs, generating revenue sources, and expanding the tax base. Examples include:

⁴ USEPA. (2018). *FY 2018-2022 EPA Strategic Plan*. Washington, D.C.: USEPA.

- **Franklin Bank:** One of EC's earliest USEPA-funded projects, 42 townhouses are now being built on a 14-acre reclaimed tract in Hanover Township.
- **Huber Bank:** Huber includes three reclaimed parcels, all of which have been sold. An upscale convenient mart is planned for the first. On the second, already home to two state facilities, an automotive paint manufacturer is expanding its plant. The third, 180-acre site holds three distribution centers, in use by Chewy, Adidas, and DHL Supply Chain. Chewy has hired 1,600 people alone. Entry-level workers can make \$29,120/year, nearly \$8,000 more than the county's entry-level average salary.⁵
- **Hanover 9:** This 340-acre tract, reclaimed in part with USEPA-funds, was purchased by NorthPoint Development in 2018 (NorthPoint also purchased the large Huber site). Two buildings are planned: one at 600,000SF² for an e-commerce company; and one at 1.4 million SF², which will be the largest commercial structure in northeastern Pennsylvania. According to NorthPoint, it will be occupied by a nationally "well-known" tenant. NorthPoint forecasts the companies will bring 1,548 new jobs with an average salary of \$41,000 and annual payroll of \$63.4 million.⁶

Based on these and other recent successes, we can see momentum growing for redeveloping EC's legacy tracts. Bliss Bank, Phase I, completed in 2016, is under a sales agreement with a national developer. Continuing reclamation activity along Wilkes-Barre Mountain – including Bliss Bank, Phase V – will ensure positive, profitable reuse. Reclamation brings more than aesthetic and ecological improvements. It creates potential. As shown in a cost-benefit analysis of USEPA-funded cleanup projects, benefits of remediation unequivocally outweigh costs across a variety of indicators.⁷ It is estimated **development on 100 acres of the +200-acre Bliss Bank site would support 800 new positions, and generate \$2.2 million in state and local income taxes and nearly \$1.6 million in real estate taxes annually.** Small, economically-depressed towns like Nanticoke need business and industry to thrive. Growth generates funds, and a stronger economy nurtures an improved quality of life, especially when the forested mountainside is preserved.

1.c. Strategy for Leveraging Resources

1.c.i. Resources Needed for Site Reuse: EC has an established record of leveraging federal, state, and local resources to support its work, and has been particularly fortunate to have received more than \$3.3 million in USEPA Brownfield Cleanup awards. Projects related to Bliss Bank's recovery have garnered over \$7 million from USEPA and PADEP. EC also contributes resources to these projects, including cash, in-kind staff time, topsoil from its 74-acre site, or compost from its large-scale composting facility. For Phase V, costs over the \$600,000 will be funded through other grant opportunities, for which we will leverage USEPA and EC funding. They include:

- **PADEP Growing Greener:** Growing Greener has been invaluable to EC's reclamation and restoration work, contributing more than \$6 million since 2000. Over \$1.6 million has been committed to earlier phases of Bliss Bank. In 2019, EC received \$500,000 towards the Espy Run stream restoration project, which runs through portions of the Bliss Bank site.
- **Pennsylvania Department of Community & Economic Development (PADCED) Multimodal Transportation Fund (MTF):** In 2017, EC received \$2 million to construct three access roads to connect three reclaimed parcels to the new South Valley Parkway (SVP).

⁵ PA Department of Labor & Industry. (2018). Quarterly Census of Occupational Wages: Luzerne County Profile [2017 Annual Averages].

⁶ Learn-Andes, J. (1, November 2018). Construction Begins on \$209M Commercial Project in Hanover Twp., Nanticoke. *Times Leader*.

⁷ Haniger, K., Ma, L., Timmins, C. (2014). The Value of Brownfield Remediation (NBER Working Paper No. 20296). Cambridge, MA: National Bureau of Economic Research.

- **PADEP Abandoned Mine Land (AML) Pilot Program:** Administered by the Office of Surface Mining and Reclamation Enforcement and disbursed by PADEP, this program funds reclamation of legacy minelands for economic development. In 2018, EC received \$3 million to complete the Bliss Bank, Phase III, project, including an access road extension, infrastructure tie-ins, and stream restoration work. A proposal for Phase IV is under review.

1.c.ii. Use of Existing Infrastructure: A crucial part of EC's original *LUP* was construction of the SVP, which had two main priorities: 1.) improve roadway safety and access to LCCC; and 2.) connect numerous legacy parcels to the regional highway system for economic development. Two decades later, the SVP is nearly complete, terminating at a roundabout just north of Bliss Bank, Phase II. A connecting access road to the site has been funded by PADCED, PADEP, and EC. Vehicular access to Phase V will occur through its extension. Water, gas, and electric connections are available through existent infrastructure in the Hanover section of Nanticoke.

SECTION 2 | COMMUNITY NEED & COMMUNITY ENGAGEMENT

2.a. Community Need

2.a.i. The Community's Need for Funding: Communities in the region face numerous challenges, including economic hardship. Luzerne County has an outstanding debt of nearly \$320 million. Until 2015, the City of Nanticoke was considered a Distressed Municipality. The small surrounding towns also have limited funds. In short, no community has the resources to address the massive environmental issues of these legacy sites. That is why EC was founded, to serve as a partner in and advocate for environmental, economic, and social progress in the South Valley. For 25 years, we have worked to mend the scars of abandoned minelands. **As a nonprofit, however, we can only proceed as funding allows. Grants are imperative for EC to carry out its work.**

2.a.ii. Threats to Sensitive Populations

2.a.ii.1. Health or Welfare of Sensitive Populations: Census Tract 2143, which is 1 mi² and includes the Hanover section of Nanticoke, embodies many of the challenges faced by area communities living amid legacy minelands. With anthracite spoils, the primary health hazard is physical injury due to their rough and unstable nature. They also create uncertainty, as the sites are prone to subsidence and fires. Within a ¼-mile radius of Phase V, PADEP's Bureau of Abandoned Mine Reclamation has responded to four subsidences and six mine fires.⁸

As a form of blight, the minelands depress property values and hamper redevelopment. The average home value in the tract is 40% less than that of Luzerne County.⁹ Over 75% of homes were built before 1970. The potential problems of substandard housing (e.g., mold, lead, rodents, carbon monoxide), are compounded by other markers of decline – overgrown vegetation, dumping, and illegal activities. Nanticoke's rate for vandalism is 36.5% higher than for the county; its arson rate is 58.1% more.¹⁰ These stressors have been shown to produce negative health outcomes.¹¹ All of these issues disproportionately affect sensitive populations in the vicinity, which include the elderly (25.7%); the disabled (18.4%); women of childbearing age (38.6%); and children (20.1%).

2.a.ii.2. Greater than Normal Incidence of Disease & Adverse Health Conditions: Whether

⁸ PADEP. Map depicting AML Inquiries and Complaints, 2015 [map]. eMapPA. <http://www.depgis.state.pa.us/emappa/>

⁹ U.S. Census/FactFinder. *2013-2017 American Community Survey (ACS)* (Tract 2143, Luzerne County, Pennsylvania). ACS statistics going forward will reflect data from these three entities, unless otherwise noted.

¹⁰ PA State Police. *Pennsylvania Uniform Crime Reports*, 2015.

¹¹ South, E.C., Kondo, M.C., Cheney, R.A., & Branas, C.C. (2015). Neighborhood Blight, Stress, & Health: A Walking Trial of Urban Greening and Ambulatory Heart Rate. *American Journal of Public Health*, 105, pp. 909-913.

attributable to working in the mines, an aging population, or simply a lower quality of life, health indicators for those in the vicinity of Bliss Bank are wanting:

- Based on municipality data, Nanticoke has higher incidences of colon, oral, skin, and breast cancers than Luzerne County.¹² Occurrence of lung cancer is nearly 3% higher.
- Heart disease comprised 31.9% of deaths from 2012-2016, compared to 26.1% for Luzerne County.¹³ Of deaths attributable to cancer, 29.5% were from cancer of the lung (Luzerne County = 24.7%).¹⁴ Sadly, death by suicide was also higher (1.8% vs. 1.4%).
- Part of the area addressed by this proposal (including Census Tract 2143) is considered a low-income food desert by the U.S. Department of Agriculture (USDA).¹⁵
- Luzerne County ranks 60th in health outcomes out of 67 counties, with a higher likelihood of premature death.¹⁶ Linked to this is a new high in drug overdose deaths, with 156 known fatalities in 2018, and nine more deaths under review.¹⁷ The total for 2016 was 142.
- Drinking water violations for Luzerne County are higher than average.¹⁸ Health impacts of AMD are unknown, although USEPA and the U.S. Department of Agriculture state it may pose hazards to human health.¹⁹ AMD-contaminated water rarely meets USEPA standards for protection of freshwater organisms or drinking, thereby significantly limiting its use.²⁰

2.a.ii.3.Economically Impoverished/Disproportionately Impacted Populations: The exit of the coal industry severely challenged the South Valley. Beyond the mine-scarred lands and damaged waterways, jobs with family-sustaining wages never reappeared, and local economic and industrial initiatives failed to thrive. Generally, conditions like these are found disproportionately in areas with low socioeconomic standing, a category the small cities and towns of the South Valley unquestionably fall within. Numerous economic indicators confirm this:

- Three Environmental Justice Communities are within one-half mile of the Phase V project, including the Hanover section of Nanticoke.²¹
- The median household income for Tract 2143 is \$35,054, nearly 34% lower than Luzerne County's. On average, 21.1% of residents live below the poverty line. Seniors, single mothers, and children are particularly hard hit. Sixty-four percent of students in the Nanticoke Area School District receive free or reduced lunch; for Hanover Area, the rate is 87%.²² In the past 12 months, 20.3% of households have used SNAP benefits.
- Those in Tract 2143 who grew up in poverty had a higher than average rate of incarceration.²³
- On average, 16.6% of residents aged 18-24 have failed to graduate high school. Only 15.2% of residents 25 or older have a college degree (Luzerne County = 22.8%; Pennsylvania = 30.9%). Regional manufacturers have stated concern about "attracting a qualified workforce" for open positions. In fact, in a recent survey, 40% of the 125 area

¹² Pennsylvania Department of Health. Number of Cancer Cases by Minor Civil Division [MCD], 2012-2016. *Cancer Standard Output Tables*.

¹³ Pennsylvania Department of Health. Selected Causes of Death by MCD, 2012-2016. *Standard Output Tables*.

¹⁴ Pennsylvania Department of Health. Number of Cancer Deaths by MCD, 2012-2016. *Cancer Standard Output Tables*.

¹⁵ Economic Research Service (ERS), USDA. *Food Access Research Atlas*, <https://www.ers.usda.gov/data-products/food-access-research-atlas/>

¹⁶ University of Wisconsin Population Health Institute. (2018). County Health Outcomes: Luzerne County. www.countyhealthrankings.org

¹⁷ Learn-Andes, J. (3, January 2019). Overdose Deaths Hit New Record. *Times Leader*. p. 1+.

¹⁸ University of Wisconsin Population Health Institute. (2018). County Health Outcomes: Luzerne County. www.countyhealthrankings.org

¹⁹ See water.epa.gov/polwaste/nps/acid_mine.cfm & www.fs.usda.gov/detail/whitemountain/landmanagement/projects/?cid=stelpdb5209652

²⁰ Cravotta, C.A., III. (2008). Dissolved Metal and Associated Constituents in Abandoned Coal-Mine Discharges, Pennsylvania, USA. Part I: Constituent Quantities and Correlations. *Applied Geochemistry*, 23, pp. 166-202.

²¹ PADEP. Map depicting Environmental Justice Areas by Census Tract, 2015 [map]. eMapPA. <http://www.dep.state.pa.us/emappa/>

²² Pennsylvania Department of Education. Yearly reports: % Students Eligible for Free and Reduced Lunch, 2017-2018.

²³ Opportunity Insights. (2019). Data for U.S. Census Tracts [map]. www.opportunityatlas.org

companies polled cited it as a chief concern (vs. 28% nationally).²⁴

- The unemployment rate for Luzerne County is 5.5%, lagging behind the state (4.2%) and country (3.7%).²⁵ Weekly wages are \$222 below the national average, making Luzerne County 307th out of 350 large counties in the United States for average earnings.²⁶ For the metro area, the jobless rate is the second highest in Pennsylvania.²⁷

2.b. Community Engagement: EC recognizes the value of community engagement and input. EC was formed by a coalition of business, educational, neighborhood, and elected leaders, who believed local stakeholders should control the fate of local lands. It was for this reason EC involved the community in its land use planning, and why it continues to engage a variety of partners in its work. Projects regularly include partnerships across federal, state, and local levels, and from a diverse range of agencies, industries, and groups. USEPA has been central to EC's success, not only understanding its mission, but also providing technical and financial support, including for earlier phases of the Bliss Bank reclamation and the restoration of Espy Run.

2.b.i. Community Involvement: Success of the Phase V reclamation requires a combined effort, not only by government officials and agencies, but also by community partners. EC has commitments from six entities that will participate in the Phase V project, as needed. All have assisted EC in the past, providing technical, environmental, educational, and/or economic expertise.

Partner	Point of Contact	Role
Eastern PA Coalition for Abandoned Mine Reclamation	Robert Hughes rhughes@epcamr.org (570) 371-3522	Local organization working regionally on AML issues. Frequently assists EC with technical assistance and on community projects. Also will coordinate activities with Susquehanna River Basin Commission and Chesapeake Bay Foundation, as needed.
Pennsylvania Environmental Council	Janet Sweeney jsweeney@pecpa.org 570-718-6507	State organization with northeast headquarters sited locally. Frequent partner of EC on conservation, outdoor recreation, and environmental education initiatives.
Newport Township Community Organization	Palmira Miller palmiram@newporttownship.com 570-592-7876	Local organization and frequent EC partner in community outreach and organization (e.g., cleanups, tree plantings).
Greater Wilkes-Barre Chamber of Commerce	Wico van Genderen wico.vangenderen@wilkes-barre.org 570-823-2101	Serves to connect, build on, and promote local businesses and regional strengths. As it has in the past, the Chamber will assist EC with planning and promotion of initiative.
Penn's Northeast	John L. Augustine III jaugustine@pennsnortheast.com 570.883.0504, Ext. 1	Regional nonprofit economic development agency, which has been a long-time partner/supporter of EC's redevelopment work. Will promote productive reuse of Bliss Bank site.
NorthPoint Development	Brent Miles bmiles@northpointkc.com 816.888.7380	National developer with significant local investment in reuse of three reclaimed EC sites. Contact with the company continues in relation to EC's current plans and progress.

2.b.ii. Incorporating Community Input: EC's community engagement plan for Bliss Bank,

²⁴ Esoda, E.J. (2015). Survey benchmarks Northeastern PA manufacturer challenges against national peer group. Northeastern Pennsylvania Industrial Resource Center. <http://www.nepirc.com/newsroom/articles/news2012-004/>

²⁵ News Release: State Employment and Unemployment – December 2018. (2019, January 18). U.S. Department of Labor [USDOL].

²⁶ News Release: County Employment and Wages – Second Quarter 2018. (2018, November 21). USDOL.

²⁷ News Release: Metropolitan Area Employment and Unemployment – November 2018. (2019, January 3). USDOL.

Phase V, traces back to a strategy developed in 2005. Done as part of an USEPA-funded project, EC designed a formal process for public input, which was later used as a model in Region 3. EC still employs this system, which includes 1.) establishing a repository for project information and reports; 2.) composing a draft *Analysis of Brownfields Cleanup Alternatives* (ABCA) and allowing public comment; 3.) disseminating information through EC's website, newsletter, social media outlets, etc.; 4.) holding public meeting(s) to discuss project plans and progress; and 5.) recording public comments and, where reasonable, incorporating them into the scope of work.

In addition to these standard protocols, EC engages the public in other ways. EC proactively communicates with municipalities about projects, ensuring they are aware of progress and future plans; and attends town/county meetings to discuss plans and answer questions. More generally, EC connects to the community through its newsletter, website, and social media feed, and through local media outlets. EC's quarterly board meetings are open to the public. Our offices tend towards an open-door policy, where it is common for residents to call or stop by, seeking information.

These procedures for stakeholder engagement have and will continue to apply to the Phase V project. As documented in the Threshold Criteria, EC notified the public of its intent to apply for a USEPA Brownfields Cleanup grant through newspaper, website, and social media posts; made the draft ABCA available in its office and on its website; and allowed for public discussion/comment on the project, including at an advertised meeting on January 14, 2019. Should a cleanup grant be awarded, EC will communicate progress to the public through press releases/articles, its newsletter, and social media posts; and will hold at least one community meeting. A sign denoting USEPA's support will be placed at the project's entryway. Although English is the predominant language of area residents, EC will assist any individual with limited English proficiency, if required.

SECTION 3 | TASK DESCRIPTIONS, COST ESTIMATES, & MEASURING PROGRESS

3.a. Proposed Cleanup Plan: Reclamation of Bliss Bank, Phase V, will contribute to environmental and economic revitalization in the South Valley. As summarized in the draft ABCA, EC considered three remediation alternatives: no action, reclamation of ± 30 acres; and reclamation of ± 50 acres. Although reclamation of ± 50 acres might appear preferable, it would not only incur larger costs, but also increase the pad's slope, require access road alterations, and raze forested areas of Wilkes-Barre Mountain. A 30-acre pad allows for a structure large enough to interest developers, while also preserving greenspace and taking other projects into account. Once the Phase V project is complete, EC will continue its reclamation plans east along the mine-scarred mountainside, as funding allows. As previously noted, this large-scale plan has been analyzed in a master plan and through more targeted engineering analyses for the legacy minelands in this area.

Based upon the selected alternative, the project will begin with EC competitively bidding engineering services via a publicly-published RFP. EC encourages application by small local firms and solicits proposals from qualified diverse businesses. After analyzing the site, the procured engineer will design and prepare plans. Contracting services will then be bid by a publicly-advertised RFP. Mineland reclamation is usually a straightforward process, involving site preparation, installation of E&S control measures, grading of spoil material (including stormwater features), and revegetation. The Phase V cleanup will comply with all applicable state and federal regulations (e.g., environmental, labor). All required permits (e.g., NPDES) will be obtained. All activities will be performed in accordance with an E&S plan approved by the Luzerne Conservation District. Parties responsible during the project will be EC, the engineer, and the contractor. EC will manage all activities. EC expects to complete the project comfortably within 36 months.

EC insists on use of BMPs on every project it undertakes, consulting with engineers to determine the most suitable practices for successful remediation. For the Phase V project, BMPs include:

- **Grading:** Earthwork removes steep slopes, which can cause erosion of the spoil materials. It will also create a level pad to promote future land reuse.
- **Stormwater Management:** Stormwater management includes steps to minimize E&S during earthmoving operations, as well as construction of structures (e.g., swales, detention basins) to control/hold runoff after the project's completion.
- **Capping:** Adding a protective layer of topsoil to the site decreases infiltration of stormwater into the spoil material, thereby mitigating production of AMD; and provides a healthy base for re-establishing vegetation.
- **Revegetation:** Grasses, shrubs, and trees not only are visually appealing, but also perform valuable restorative tasks such as slowing run-off, stabilizing land, decreasing erosion, and restoring habitat to encourage the return of wildlife.

BMPs also include consideration of nearby populations. To this end, work will be contained to the defined area and be limited to daytime hours. Dust emission controls will be employed. The site has been evaluated for threatened/endangered species. None were found. We believe the safety and environmental improvements from reclamation, including adding green/buffer space, outweigh the temporary disturbances. EC's will maintain the reclaimed site as long as it retains ownership.

3.b. Description of Tasks & Activities: The scope of work summarized above will be completed through three primary tasks: cooperative agreement oversight, community outreach, and cleanup activities. Sub-tasks of each are given below:

- **Task 1 | Cooperative Agreement Oversight:** Includes oversight of cleanup and grant. Sub-tasks include progress reviews, MBE/WBE forms, USEPA reports, ACRES input, and institutional controls; and selection of qualified engineering consultant and construction contractor. This task also includes travel to brownfields training conferences/webinars.
- **Task 2 | Community Outreach:** EC staff will implement a community relations plan, which includes preparation of notices; project correspondence; press relations; maintenance of project webpage; a community meeting; and coordination of partner involvement.
- **Task 3 | Cleanup Activities:** Both phases of work for the cleanup will be completed by contracted professionals. EC's president/CEO and project manager will work with the engineer during planning, and supervise the contractor during on-site work.
 - **Engineering:** Procured engineer will prepare bid specifications, acquire permits, and assist with procurement of construction-phase contractor and with supervision of work.
 - **Construction:** Procured contractor will secure bonds/insurances, mobilize equipment, clear and stake site, and install E&S controls. Construction will include grading of spoil materials to achieve specified levels/slopes; and capping of area with a 6" layer of topsoil, resourced from EC's 74-acre topsoil pit. Disturbed areas will be hydroseeded and covered with erosion control mats. Buffer plantings will be employed, as needed.

3.c. Cost Estimates & Outputs: Reclamation of Phase V, including infrastructure tie-ins, is projected to cost over \$3.2 million. EC is seeking \$500,000 through the USEPA Brownfields Cleanup Program to assist with the project. EC will meet the required 20% cost share (\$100,000) through a cash contribution, as documented in Attachment A. EC elects not to use grant funds for personnel, fringe, or administrative costs. The majority of funds will be used for on-site work.

Budget Categories		Project Tasks			Total
		T1 Cooperative Agreement Oversight	T2 Community Outreach	T3 Cleanup Activities	
Direct Costs	Personnel				
	Fringe Benefits				
	Travel	\$1,016.00			\$ 1,016.00
	Equipment				
	Supplies				
	Contractual			\$498,984.00	498,984.00
	Other				
Total Direct Costs		\$1,016.00		\$498,984.00	\$500,000.00
Indirect Costs					
Total Federal Funding		\$1,016.00		\$498,984.00	\$500,000.00
Cost Share				100,000.00	100,000.00
Total Budget:					\$600,000.00

A detailed breakdown of project work items, costs, and schedule follows:

- **Task 1 | Cooperative Agreement Oversight (\$1,016 funded by USEPA)**
 - **Conference Travel:** Attendance at brownfields conference (Registration: \$125) + (M&IE: 4 days @ \$56/day) + (Lodging: 3 nights @ \$125/day) + \$292 airfare/mileage
- **Task 2 | Community Outreach (\$0 funded by USEPA)**
- **Task 3 | Cleanup Activities (\$498,984 funded by USEPA; \$100,000 funded by EC)**
 - **Engineering:** Lump sum, performed in months 1-14 (\$50,000 USEPA, \$50,000 EC)
 - **Construction:** Performed in months 15-36 (\$448,984 USEPA, \$50,000 EC): Mobilization/Demobilization (lump sum, \$20,000) + E&S Measures (lump sum, \$32,984) + Excavation/Cut & Fill (528,000cy @ \$0.75/cy = \$396,000)

Based on the above information, EC anticipates the following project outputs: completion of (1) ABCA; preparation of (1) QAPP; development of (1) Community Involvement Plan; travel to (1) national brownfields conference; procurement of (1) engineer/consultant; preparation of (1) specifications package for cleanup activities; procurement of (1) cleanup contractor; reclamation of 30 acres of abandoned mineland in compliance with PADEP regulations and practices; and completion of (1) final project documentation, including data reporting to USEPA and ACRES.

3.d. Measuring Environmental Results: EC routinely monitors project activities for pace, compliance, and adherence to plans. Specified outputs and outcomes, such as those listed in 3.c., are systematically assessed. Generally, work is documented through on-site visits, digital photography, and written documentation. Certain information regarding progress (e.g., work plans, cleanup actions) is submitted to USEPA through quarterly/annual reports and ACRES. EC also communicates progress publicly through its newsletter, website, and social media posts. Successful reclamation of the site will be evaluated and documented by PADEP.

SECTION 4 | PROGRAMMATIC CAPABILITY & PAST PERFORMANCE

4.a. Programmatic Capability

4.a.i. Organizational Structure: EC's organizational structure supports its long-term success in planning, managing, and completing its projects. EC's all-volunteer Board of Directors provides strategic governance, fiscal guidance, and outcome reviews. Daily operations are performed by EC's core staff, a team committed to EC's mission and well-equipped to handle project requirements:

- **Project Director | Michael Dziak, President/CEO:** Prior to joining EC in 1994, Mr. Dziak served in the U.S. Navy, then worked as an executive manager at IBM for 27 years. He directs and manages all organization activities, including strategy, reclamation, conservation, and redevelopment initiatives; and oversight of finances, operations, and staff.
- **Project Manager | Richard Ruggiero, Sr., Property Documentation Specialist & Survey Coordinator:** Mr. Ruggiero has more than 40 years of engineering and survey experience. As project manager, Mr. Ruggiero will work with engineers during the design phase, oversee all site work, and report progress to the Project Director.
- **Grant Manager | Geoffrey Shaw, CPA, Executive Administrator:** Mr. Shaw has over 28 years of experience in the accounting field. Since joining EC in 2014, he has overseen all financial and grant activities for the organization and will ensure compliance with all terms and conditions of the Cooperative Agreement, including ACRES reporting.
- **Public Relations | Elizabeth W. Hughes, EdD, Director of Communications:** Dr. Hughes, whose background is in community engagement and marketing within the nonprofit sector, will oversee media/public relations, coordinate community events, and represent EC at brownfields-related conferences and trainings.

4.a.ii. Acquiring Additional Resources: In accordance with local, state, and federal procurement standards, including solicitation of disadvantaged business enterprises, EC will competitively procure qualified engineering firms and construction contractors.

4.b. Past Performance & Accomplishments

4.b.i. Currently or Has Ever Received an EPA Brownfield Grant: EC has been the recipient of seventeen USEPA Brownfield Cleanup grants and one EWDJT grant since 2003. The three most recent cleanup projects, including funds spent as of December 31, 2018, are provided below:

Year	Grant No.	Project	Award	Outlay	Status
2018	BF-96358701	Espy Run Stream Restoration, Segment C	\$200,000	\$2,800	In Progress
2017	BF-96353501	Espy Run Stream Restoration, Segment B	\$200,000	\$16,827.50	In Progress
2017	BF-96353401	Bliss Bank, Phase III, Parcel F	\$200,000	\$20,578.90	In Progress

4.b.i.1. Accomplishments: Thus far, EC has reclaimed 2,000 acres of mine-scarred land, built three AMD treatment systems, and given 8,000 acres over to conservation/recreational use. We are particularly appreciative for USEPA's continued support. EC's efforts have earned us seven Pennsylvania Governor's Awards for Environmental Excellence, and a USEPA Mid-Atlantic Award for Environmental Excellence in 2009. In 2015, EC was featured as a USEPA Brownfields "Success Story." EC was invited by USEPA to present its story at the annual West Virginia Brownfields Conference in 2016; and at the Pennsylvania Brownfields Conference in 2018. EC also has held two press conferences for USEPA to announce grant awards, and has given a poster presentation at the 2017 National Brownfields Training Conference in Pittsburgh, PA.

4.b.i.2. Compliance with Grant Requirements: EC has a reputation of responsible project management and fiscal responsibility. Over our 25 years, we have received and administered 25 grants from nine federal agencies, with project costs exceeding \$17.5 million. In all cases, EC has performed grant activities in compliance with work plans, terms and conditions, expenditures, and reporting requirements (including via ACRES). EC has seven open USEPA Brownfields Cleanup grants, which expire between September 30, 2019, and September 30, 2021. Completion of these projects is expected within set grant periods.



Dedicated to Mine Land Reclamation, Conservation, & Economic Development in the Wyoming Valley

January 31, 2019

Ms. Felicia Fred, Brownfield Coordinator
Environmental Protection Agency, Region 3
1650 Arch Street | Mail Code 3HS51
Philadelphia, PA 19103

RE: Documentation of Leveraged/Committed Funds
Bliss Bank Reclamation, Phase V
Hanover Township, Luzerne County, Pennsylvania

Ms. Fred:

Earth Conservancy (EC) is dedicated to revitalizing mine-scarred lands and impacted watersheds in Luzerne County, Pennsylvania. To that end, EC plans to reclaim approximately ±30 acres of legacy mineland in Hanover Township, Luzerne County, Pennsylvania, as part of its ongoing Bliss Bank Reclamation project. Several earlier phases of the Bliss Bank project and associated stream reconstruction on Espy Run have been supported by USEPA Brownfields Cleanup funding.

EC is requesting \$500,000 in Brownfields Cleanup funding from the USEPA Brownfields and Land Revitalization Program for support of the Phase V reclamation project. For its mandatory cost share, EC will provide \$100,000 in cash for engineering and construction services.

We believe reclamation of Bliss Bank, Phase V, is important to environmental and economic recovery in the region, alleviating nonpoint source pollution, restoring local ecosystems, and recovering damaged land for positive reuse. EC is committed to the project's realization. Should you need anything further, please feel free to contact me.

Sincerely,

Michael A. Dziak
President/CEO

Threshold Criteria

Including

Attachment A: Documentation of Eligibility/Nonprofit Status (1 page)

Attachment B: Documentation of Site Ownership (1 page)

Attachment C: USGS Topographic Map of Project Site (1 page)

Attachment D: Excerpt from Deed of Sale (2 pages)

Attachment E: Draft Analysis of Brownfields Cleanup Alternatives (12 pages)

Attachment F: Documentation of Community Notification (5 pages)

1. Applicant Eligibility: Earth Conservancy (EC) is a registered 501(c)(3) nonprofit organization dedicated to mineland reclamation, environmental conservation, and economic development in the Wyoming Valley of Luzerne County, Pennsylvania. A copy of EC's IRS determination letter is included with the Threshold Criteria as Attachment A.

2. Previously Awarded Cleanup Grants: Phase V of the Bliss Bank Reclamation project has not previously received funding from a U.S. Environmental Protection Agency (USEPA) Brownfields Cleanup Grant.

3. Site Ownership: EC owns the property containing Phase V of the Bliss Bank Reclamation project. A map documenting EC's ownership of the land in relation to the project is included with the Threshold Criteria as Attachment B.

4. Basic Site Information

- a. Site Name:** Bliss Bank, Phase V
- b. Site Address:** Hanover Township, Luzerne County, Pennsylvania (zip = 18706); center of site at approximately 41.182152°, -75.985435°.
- c. Current Owner:** Earth Conservancy
- d. If Not Owner:** NA

5. Status and History of Contamination at the Site

a. Hazardous Substance Contamination: Bliss Bank is mine-scarred land, which consists of sulfide minerals (i.e., pyrite). These minerals produce acid mine drainage (AMD). AMD is considered a pollutant, which renders groundwater impotable and impairs (and can destroy) terrestrial and aquatic ecosystems. Mining wastes, however, are exempt from hazardous substance regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA, Bevill amendment).

b. Operational History/Current Uses: The Bliss Bank site represents over 200 acres that had been used by the Blue Coal Corporation as part of its anthracite mining operations. Evidence of this activity remains, including large, barren mountains of mine spoils, highly irregular topography, and AMD-contaminated waterways. Upon Blue Coal's bankruptcy in 1976, it was abandoned and has remained in this condition since that time. In 2015, EC began reclamation of the area, moving across the site in phases in an easterly direction. Projects include:

- **Bliss Bank, Phase I (Parcels A&B):** Reclamation completed in 2015 (36 acres).
- **Bliss Bank, Phase II (Parcels C&D):** Reclamation anticipated for completion in spring 2019 (22 acres).
- **Bliss Bank, Phase III (Parcels E&F):** Engineering design work completed, currently in permitting stage (22 acres).

Besides reclamation, the Bliss Bank project includes restoration of Espy Run, a waterway that had been destroyed by mining operations on the site. A construction contract for Segment A has been awarded, with work beginning in the spring. Engineering design for three additional segments has been completed. All of these projects have been supported in

part by USEPA. Additional funding from the Pennsylvania Department of Environmental Protection (PADEP) and the Pennsylvania Department of Community and Economic Development (PADCED) is underwriting projects costs, too, as well as additional stream restoration work, construction of an access road, and construction of utility tie-ins. Recently, EC applied for funding for reclamation of Bliss Bank, Phase IV, through PADEP's AML Pilot Program (via the Office of Surface Mining and Reclamation Enforcement [OSMRE]).

c. Environmental Concerns: As mine-scarred land, Bliss Bank produces three major environmental impacts. First, because of mining activity, the land is degraded, most notably by the barren mountains of waste rock, a.k.a., culm, some of which are three-stories high. The culm banks are unstable and dangerous. They are also prone to erosion, which leads to the second environmental concern: sedimentation. Sedimentation is one of USEPA's "Three Big Pollutants" of water¹, clouding water and clogging channels of nearby streams, such as the hydrologically-impaired Espy Run. Third, the culm banks contribute to the production of AMD. Iron pyrite, a primary component of the spoils, reacts with water and oxygen to create ferrous iron and sulfuric acid. As additional oxygen is introduced, the ferrous iron becomes insoluble. The resulting precipitate changes water chemistry and coats streams with an orange sludge. Da Rosa, Lyon, and Hocker (1997) note this process will continue "as long as [the] source rock is exposed to air and water and until the sulfides are leached out – a process that can last hundreds, even thousands, of years" (p. 10).²

d. How Site Became Contaminated and Extent: Damage at Bliss Bank is directly attributable to pre-regulatory mining activity by the Blue Coal Corporation, which used the 200-acre site for deep-mining, strip-mining, and as a coal waste repository. These operations resulted in mountainous piles of spoils, deep pits, and artificial cliffs. Large sections of the property are barren, as little vegetation can survive on the acidic soil. Furthermore, illegal behaviors like dumping, vandalism, and trespassing by ATVs are common. Associated complaints of drinking, drug use, gunshots, and fires have also occurred.

The mining activity at Bliss Bank also impacted local waterways. As noted, Espy Run, one of three tributaries to the Nanticoke Creek, is lost underground at Bliss Bank through fractures in the earth. Erosion and sedimentation added to the eradication of the stream's original path. Furthermore, when Espy Run resurfaces near the northeast side of Bliss Bank, it is contaminated by AMD. The water is not only impotable to humans, but also toxic to many plants and wildlife, thereby impairing local ecosystems.

6. Brownfields Site Definition: Phase V of Bliss Bank meets the definition of a brownfield in that it is characterized as mine-scarred lands, i.e., "lands, associated waters, and surrounding watersheds where extraction, beneficiation, or processing of ores and minerals (including coal) has occurred." EC affirms that

- a. National Priorities List:** Bliss Bank, Phase V, is not listed or proposed for listing on the National Priorities List.
- b. CERCLA:** Bliss Bank, Phase V, is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA.

¹ From the EPA's "Three Big Pollutants," <http://water.epa.gov/learn/resources/bigpollutants.cfm>

² Da Rosa, C.D., Lyon, J.S., & Hocker, P.M. (1997). *Golden Dreams, Poisoned Streams*. Washington, D.C.: Mineral Policy Ctr.

- c. **Government Custody:** Bliss Bank, Phase V, is not subject to the jurisdiction, custody, or control of the U.S. government.

7. Environmental Assessment Required for Cleanup Proposals: In 1993, prior to Earth Conservancy's purchase of the Blue Coal Corporation estate, all property underwent a field assessment by Resource Technologies Corporation (RTC). The study identified the Bliss Bank tract as "refuse banks" that were part of an existing mine dump. Mine dump soils are generally steep, roughly-graded piles of mine waste material. Mine dumps are not considered to be comprised of a hazardous material. A U.S. Geological Survey topographical map indicating this status is included as part of the Threshold Documentation as Attachment C.

In 2005, an Environmental Site Assessment (ESA) was completed by the U.S. Army Corps of Engineers (USACE) for the Nanticoke Creek watershed, which includes Bliss Bank, as part of its work with PADEP, PADEP's Bureau of Abandoned Mine Reclamation (BAMR), and EC in developing the *Detailed Project Report and Integrated Environmental Assessment of the Nanticoke Creek Watershed*, under Section 206 – Ecosystem Restoration. Again, the report indicated much of the area is covered by Mine dump soils. The limits of disturbance for this project are almost wholly within the Mine Dump soils. Based on the USACE study, no recognized environmental conditions were identified that would limit potential future uses.

In 2011, Pennsylvania Tectonics, Inc., completed a Phase I ESA for the Bliss Bank site in preparation for a Brownfields Cleanup application to USEPA. This ESA indicated the majority of the area is covered by Strip mine soils. According to the *Soil Survey of Luzerne County* (1981) by the U.S. Department of Agriculture (USDA), strip mine soils are a "nearly level to very steep mixture of the bedrock and unconsolidated soil and rock material through surface mining to expose anthracite coal. Runoff is slow to very rapid, and the hazard of erosion is moderate to severe. Most areas are extremely acid."³ Areas of mine dump, mine wash, urban land, and cut and fill land are also included in strip mine areas. There were no ongoing or anticipated environmental enforcement actions related to the site. The report recommended no Phase II ESA need be performed.

In 2018, LaBella Associates, P.C., completed a Phase I ESA in preparation for continuing work on Bliss Bank and for future work on the Truesdale Bank (approximately 697 mine-scarred acres). Similar to previous reports, the property was characterized primarily as Strip mine and Mine dump soils. The authors stated no RECs, CRECs, or HRECs were related to the site, and that it does not pose a significant environmental risk. No Phase II ESA was recommended.

In December 2018, in lieu of a Phase II ESA, PADEP BAMR provided a written statement affirming EC's plans for reclamation for the Bliss Bank area. Actions, such as

- extensive earthwork to achieve stable, developable grades;
- establishment of appropriate stormwater best practices;
- importation of topsoil and seeding;
- extension of a planned access road; and
- extension of nearby utilities

were cited as appropriate steps to address environmental and reuse concerns.

³ Bush, R.D. (1981). *Soil Survey of Luzerne County, Pennsylvania*. Washington, D.C.: USDA Soil Conservation Service in Cooperation with The Pennsylvania State University College of Agriculture and the Pennsylvania Department of Environmental Resources State Conservation Commission.

8. Enforcement or Other Actions: There are no ongoing or anticipated environmental enforcement or other actions related to the brownfield site for which EC is seeking funding; nor are there any inquiries or orders from federal, state, or local government entities regarding responsibility of any party, including EC, for the contamination or hazardous waste at the site, of which EC is aware.

9. Sites Requiring a Property-Specific Determination: Bliss Bank, Phase V, does not require a site-specific determination, since it does not fall under any of the stated requirements requiring such determination, including National Priorities List, CERCLA, or Government Custody.

10. Threshold Criteria Related to CERCLA/Petroleum Liability

a. Property Ownership Eligibility – Hazardous Substance Sites

iii. CERCLA §107 Liability: EC affirms that Bliss Bank, Phase V, is not a hazardous substances site, and EC, as an Innocent Landowner (ILO), is not liable for contamination of or on the site. A summary of EC's purchase of the Blue Coal Corporation estate clarifies these assertions.

EC was founded in 1992 with the mission of remediating the mine-scarred properties of the Blue Coal Corporation, and returning them to productive reuse. In 1993, a year prior to acquisition, EC engaged RTC to perform a field study of all the Blue Coal properties. The report characterized the Bliss Bank area as strip-mined land and refuse banks, which are not considered comprised of hazardous materials. No other hazardous materials were identified on the site.

EC's purchase of the Blue Coal estate was completed on August 18, 1994. The Deed of Sale states EC is not potentially liable for contamination on the purchased properties under CERCLA §107. Specifically, it reads:

“the purchaser [EC] is not assuming nor shall it in any way whatsoever be liable or responsible, as a successor or otherwise, for any liabilities...., which, whether fixed or contingent, disclosed or undisclosed, are hereby extinguished...[and]...has delivered to purchaser a release thereof. (p. 7)

And:

Without limiting the generality of the foregoing, purchaser shall not be liable or responsible, as a successor or otherwise, for any...obligations...in connection with...environmental liabilities, debts, claims, or obligations arising from conditions first existing on or prior to closing (including without limitation the presence of hazardous, toxic, polluting, or contaminating substances or wastes) which may be asserted on any basis, including without limitation under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 ET. SEQ. and the Hazardous Sites Clean Up Act, 35 PA. Stat. Ann. Section 6021.101 ET. SEQ. (pp. 7-8)

Relevant pages of the Deed of Sale are included as Attachment D.

(1.) Information on Liability and Defenses/Protections

(a.) Information on the Property Acquisition: EC purchased the estate of the bankrupt Blue Coal Corporation from Frank J. McDonnell, Trustee in Bankruptcy for

the company, on August 18, 1994. The lands were purchased fee simple. The lands (16,496 acres) had sat dormant for the 17 years between Blue Coal declaring bankruptcy and EC's purchase. EC has no current or prior familial, corporate or financial relationships or affiliations with any prior owners or operators of the property, including the person from whom the property was acquired, or with any potentially liable entity.

(b.) Pre-Purchase Inquiry: EC purchased the holdings of the Blue Coal Corporation with the express purpose of remediating the mine-scarred lands and encouraging their responsible reuse, including environmental restoration. As noted, EC requested a field assessment of the Blue Coal lands be performed by RTC of State College, Pennsylvania. The report was completed in August, 1993.

(c.) Timing and/or Contribution of Hazardous Substance Disposal: There are no hazardous substances on Bliss Bank, Phase V, that require removal/disposal. EC affirms it did not cause or contribute to any release of hazardous substances at the site; has not, at any time, arranged for the disposal of hazardous substances at the site; nor has transported hazardous substances to the site. EC is not potentially liable for AMD pollution originating at the site

(d.) Post-Acquisition Uses: The site has remained vacant/unused since acquisition, and has been solely within EC's ownership.

(e.) Continuing Obligations: EC is unaware of any hazardous substances or continuing or threatened releases at the Bliss Bank site. Since EC has owned the property, reasonable steps have been and will continue to be taken to supervise the property, which includes routine inspections to restrict trespassing and illegal dumping. EC confirms it (i.) will comply with all land use restrictions and institutional controls; (ii.) will assist and cooperate with those performing the cleanup and provide access to the property; (iii.) will comply with all information requests and administrative subpoenas that have or may be issued in connection with the property; and (iv.) will provide all legally required notices.

b. Property Ownership Eligibility – Petroleum Sites: Not applicable/not a petroleum site

11. Cleanup Authority and Oversight Structure

a. Oversight: Cleanup of Bliss Bank will be managed by EC in accordance with all USEPA guidelines. Founded in 1992, EC has a long, successful record of mineland reclamation and watershed restoration work. To date, EC has reclaimed 2,000 acres of mine-scarred land, at an investment of over \$47.7 million. Furthermore, a range of collaborators have been involved. Projects have been done in conjunction with the USEPA, USDA, OSMRE, USACE PADEP, PADEP BAMR, PADCED, Luzerne County, and many local municipalities. Other environmental, nonprofit, and community organizations have been integral to our work as well. USEPA has been particularly instrumental to EC's success, having awarded seventeen Brownfields Cleanup grants for our reclamation and restoration projects since 2003. For every project, EC has adhered to all specified standards and laws, and has fulfilled all contractual stipulations in relation to grants. EC also strives to keep the community informed about our organization, its projects, and environmental issues through

our website, social media posts, newsletters, special brochures, partner events, and the local press.

For Phase V of the Bliss Bank reclamation, Michael Dziak, EC's President/CEO, will first authorize the project, and then be responsible for ensuring compliance with 40 CFR Part 30 and all other associated documents; and for overseeing procurement of engineering and construction firms through an open competitive selection process. He will ensure firms possess a positive performance record and requisite financial and technical resources. EC's Executive Administrator, Geoffrey Shaw, CPA, will assist. Richard Ruggiero, Sr., EC's Property Documentation Specialist & Survey Coordinator, will serve as project manager. His responsibilities will include monitoring the procured consultants/contractors to ensure their work meets all stated specifications. Qualifications of key staff are described further in the Ranking Criteria, Section 4.a.i.

b. Adjacent Properties: EC owns the land of and surrounding Bliss Bank, Phase V. EC does not anticipate requiring entry from neighboring properties. However, should the need arise, we do not expect difficulty, as we frequently work with property owners near our sites throughout the lower Wyoming Valley.

12. Community Notification: Per application requirements, documents attesting to notification of the public regarding EC's reclamation of Bliss Bank, Phase V, are included as attachments to the Threshold Criteria. These include:

- Copy of the draft ABCA (Attachment E)
- Copy of Proof of Publication and advertisement (Attachment F, page 1)
- Screenshots of EC website and Facebook notification posts (Attachment F, page 2)
- Office and public meeting sign-in/comment sheets (Attachment F, pages 3-5)
 - ♦ No in-office comments were received regarding the draft application or ABCA; therefore, no responses to comments were made. Two online comments were made on EC's Facebook post. One was "liked"; the second was a sad emoji. Follow-up conversation with the second poster was more about the symbolic nature of the culm banks, versus the project itself. A screenshot of these comments is included.
 - ♦ There were no attendees at the public meeting on January 14, 2019, to review/discuss the draft application or ABCA; therefore, no responses to comments were made.

13. Statutory Cost Share: Reclamation of Bliss Bank, Phase V, is projected to cost \$3,237,537. EC is seeking \$500,000 for the project through the USEPA Brownfields Cleanup Grant Program.

- a. Ability to Meet Cost Share:** EC will meet the required 20% cost share of \$100,000 through a cash contribution, as itemized in the budget table in the Ranking Criteria, Section 3.c. Expenses over the \$600,000 will be funded by EC or through grants through the Commonwealth of Pennsylvania (e.g., PADEP Growing Greener, PADEP AML Pilot Program, PADCED Multimodal Transportation Fund).
- b. Hardship Waiver:** EC is not requesting a hardship waiver.

INTERNAL REVENUE SERVICE
DISTRICT DIRECTOR
31 HOPKINS PLAZA
BALTIMORE, MD 21201

DEPARTMENT OF THE TREASURY

Date:

JUL 26 1996

EARTH CONSERVANCY
C/O FREDERICK J GERHART ESQ
101 S MAIN STREET
ASHLEY, PA 18706-1506

Employer Identification Number:
23-2683110

Case Number:
526207003

Contact Person:
EP/EO CUSTOMER SERVICE UNIT

Contact Telephone Number:
(410) 962-6058

Our Letter Dated:
April 14, 1993

Addendum Applies:
Yes

Dear Applicant:

This modifies our letter of the above date in which we stated that you would be treated as an organization that is not a private foundation until the expiration of your advance ruling period.

Your exempt status under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3) is still in effect. Based on the information you submitted, we have determined that you are not a private foundation within the meaning of section 509(a) of the Code because you are an organization of the type described in section 509(a)(1) and 170(b)(1)(A)(vi).

Grantors and contributors may rely on this determination unless the Internal Revenue Service publishes notice to the contrary. However, if you lose your section 509(a)(1) status, a grantor or contributor may not rely on this determination if he or she was in part responsible for, or was aware of, the act or failure to act, or the substantial or material change on the part of the organization that resulted in your loss of such status, or if he or she acquired knowledge that the Internal Revenue Service had given notice that you would no longer be classified as a section 509(a)(1) organization.

If we have indicated in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

Because this letter could help resolve any questions about your private foundation status, please keep it in your permanent records.

If you have any questions, please contact the person whose name and telephone number are shown above.

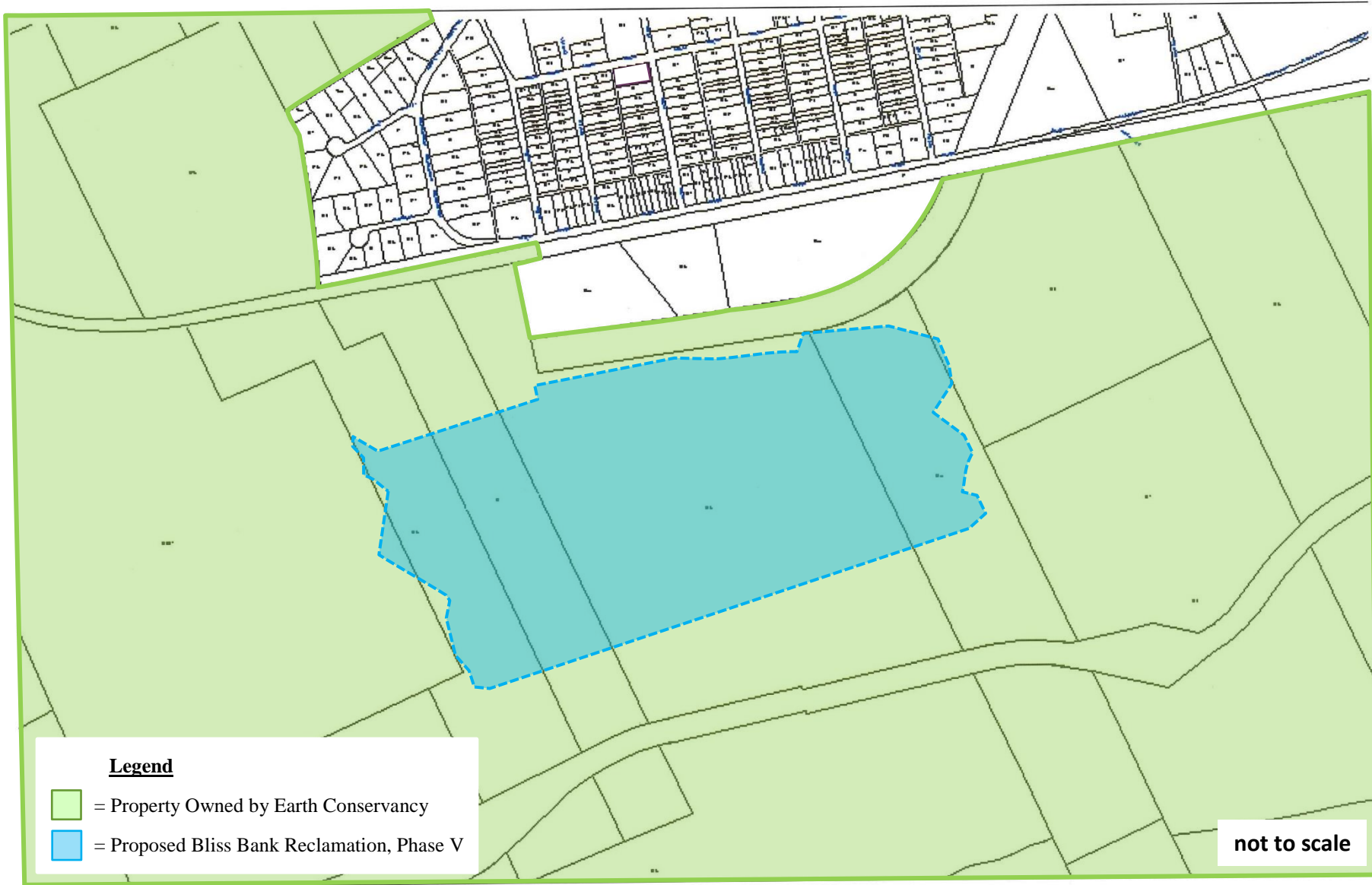
Sincerely yours,


District Director

Enclosure:
Addendum

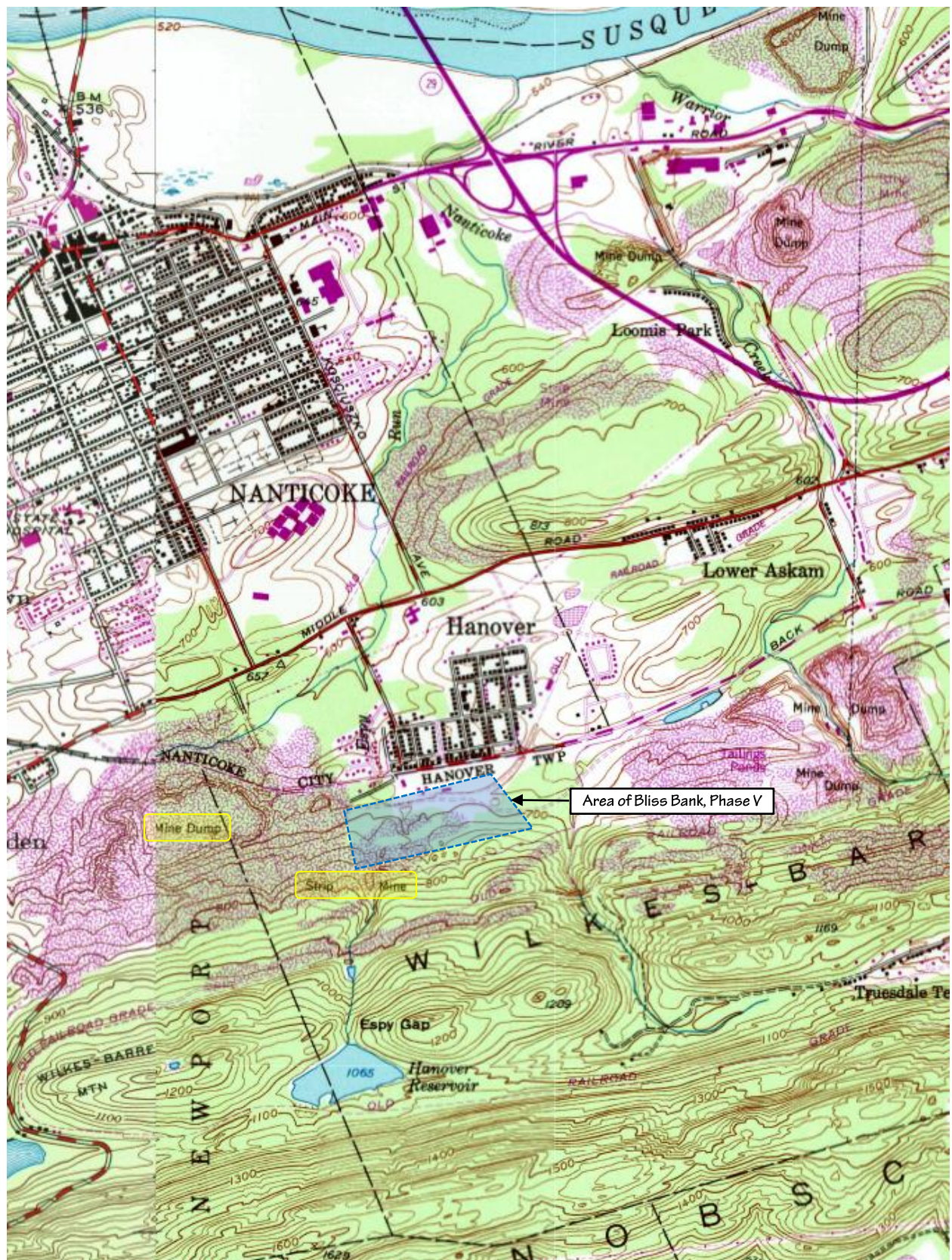
RPD Analyzer GIS Tax Map Report

Luzerne County, PA



Note: Image NOT a Complete Tax Map ... View Selected by User

Printed: 1/11/2019 9:50:38 AM



instrumentality, domestic or foreign, and any laws, rules, regulations, actions and proceedings of any kind or nature and any claim by any person or entity asserting any rights or interests in the Assets, subject to the terms of this Order.

3. (a) EXCEPT AS OTHERWISE REQUIRED BY STATUTE AND OTHER THAN AS EXPRESSLY PROVIDED FOR IN THE AGREEMENT, PURCHASER IS NOT ASSUMING NOR SHALL IT IN ANY WAY WHATSOEVER BE LIABLE OR RESPONSIBLE, AS A SUCCESSOR OR OTHERWISE, FOR ANY LIABILITIES, DEBTS OR OBLIGATIONS OF THE TRUSTEE, DEBTORS, OR ANY OF THEM OR ANY LIABILITIES, DEBTS OR OBLIGATIONS IN ANY WAY WHATSOEVER RELATING TO OR ARISING FROM THE OPERATION OF EITHER DEBTOR'S ASSETS PRIOR TO CLOSING OR ANY LIABILITIES CALCULABLE BY REFERENCE TO EITHER DEBTOR OR EITHER DEBTOR'S ASSETS OR OPERATIONS, OR, EXCEPT AS SET FORTH BELOW, RELATING TO CONTINUING CONDITIONS EXISTING ON OR PRIOR TO CLOSING, WHICH LIABILITIES, DEBTS AND OBLIGATIONS, WHETHER FIXED OR CONTINGENT, DISCLOSED OR UNDISCLOSED, ARE HEREBY EXTINGUISHED INsofar AS THEY MAY GIVE RISE TO SUCCESSOR LIABILITY, WITHOUT REGARD TO WHETHER THE CLAIMANT ASSERTING ANY SUCH LIABILITIES, DEBTS OR OBLIGATIONS HAS DELIVERED TO PURCHASER A RELEASE THEREOF. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, PURCHASER SHALL NOT BE LIABLE OR RESPONSIBLE, AS A SUCCESSOR OR OTHERWISE, FOR ANY OF THE TRUSTEE'S OR EITHER DEBTOR'S LIABILITIES, DEBTS OR OBLIGATIONS, WHETHER CALCULABLE BY REFERENCE TO EITHER DEBTOR OR EITHER DEBTOR'S OPERATIONS, OR UNDER OR IN CONNECTION WITH (I) ANY EMPLOYMENT OR LABOR AGREEMENTS, (II) ANY PENSION, WELFARE,

COMPENSATION OR OTHER EMPLOYEE BENEFIT PLANS, AGREEMENTS, PRACTICES AND PROGRAMS, INCLUDING, WITHOUT LIMITATION, EITHER THE TRUSTEE'S OR DEBTOR'S PENSION PLAN; AND ANY PENSION PLAN FOR SALARIED EMPLOYEES OF EITHER THE TRUSTEE OR DEBTOR; (III) THE CESSATION OF EITHER DEBTOR'S OPERATIONS, DISMISSAL OF EMPLOYEES, OR TERMINATION OF EMPLOYMENT OR LABOR AGREEMENTS OR PENSION, WELFARE, COMPENSATION OR OTHER EMPLOYEE BENEFIT PLANS, AGREEMENTS, PRACTICES AND PROGRAMS, OBLIGATIONS WHICH MIGHT OTHERWISE ARISE OR PURSUANT TO EMPLOYEE RETIREMENT INCOME SECURITY ACT OF 1974, FAIR LABOR STANDARDS ACT, TITLE VII OF CIVIL RIGHTS ACT OF 1964, THE AGE DISCRIMINATION AND EMPLOYMENT ACT OF 1967, FEDERAL REHABILITATION ACT OF 1973, NATIONAL LABOR RELATIONS ACT, OR CONSOLIDATED OMNIBUS BUDGET RECONCILIATION ACT OF 1985, (IV) WORKMEN'S COMPENSATION, OCCUPATIONAL DISEASE OR UNEMPLOYMENT OR TEMPORARY DISABILITY INSURANCE CLAIMS INCLUDING, WITHOUT LIMITATION, BLACK LUNG DISEASE CLAIMS; (V) EXCEPT AS OTHERWISE EXPRESSLY PROVIDED FOR IN THE AGREEMENT AND AS OTHERWISE REQUIRED BY STATUTE, ENVIRONMENTAL LIABILITIES, DEBTS, CLAIMS OR OBLIGATIONS ARISING FROM CONDITIONS FIRST EXISTING ON OR PRIOR TO CLOSING (INCLUDING WITHOUT LIMITATION THE PRESENCE OF HAZARDOUS, TOXIC, POLLUTING, OR CONTAMINATING SUBSTANCES OR WASTES) WHICH MAY BE ASSERTED ON ANY BASIS, INCLUDING WITHOUT LIMITATION UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT, 42 U.S.C. SECTION 9601 ET. SEQ. AND THE HAZARDOUS SITES CLEAN UP ACT, 35 PA. STAT. ANN. SECTION 6021.101, ET. SEQ., (VI) ANY BULK SALES OR SIMILAR LAW, (VII) ANY

Dedicated to Mine Land Reclamation, Conservation, & Economic Development in the Wyoming Valley

Analysis of Brownfields Cleanup Alternatives

Bliss Bank Reclamation, Phase V
Hanover Township, Luzerne County, PAPrepared by
Earth Conservancy

INTRODUCTION AND BACKGROUND

Earth Conservancy (EC) has prepared this Analysis of Brownfields Cleanup Alternatives (ABCA) for reclamation of a portion of Bliss Bank site in Hanover Township, Luzerne County, Pennsylvania. Because of its large size, Bliss Bank is being reclaimed via a sequence of smaller projects, as funding allows. Each project will improve environmental health in the area through 1.) repairing mine-scarred land; and 2.) reducing production of acid mine drainage (AMD). Upon completion, properties can be reused for a variety of development and recreation opportunities.

The purpose of the ABCA is to provide information about environmental and contamination issues at the site and to evaluate remedial alternatives. This evaluation will be revised, as necessary, and incorporated into the final site cleanup plan for review by the community, project partners, regulatory oversight agencies, and the United States Environmental Protection Agency (USEPA).

Organization and History

EC is a nonprofit organization dedicated to addressing the impacts of historical coal mining activity in northeastern Pennsylvania. Our focus: reclamation, conservation, and economic revitalization. In 1992, leaders from area businesses, colleges, nonprofits, and communities joined together to recover the lands of the Blue Coal Corporation, which had declared bankruptcy in the mid-1970s. Generally located to the west of Wilkes-Barre, many of the nearly 16,500 acres have been ignored, the mine-scarred land seen only as permanent eyesores and reminders of the past. EC, however, views them as an opportunity for growth, progress, and transformation. After raising \$16 million in grants and loans, EC purchased the Blue Coal lands in 1994.

After the sale was finalized, EC began working to return the lands to productive use. It began with two important activities. First, with technical support from Wilkes University, it created a Geographic Information System database with fifteen layers of data on the environmental and geographic characteristics of the lower Wyoming Valley. Second, with professional planners and a 38-member steering committee, it developed a comprehensive, long-term *Land Use Plan (LUP)* to determine the smartest, most equitable, and most sustainable ways to reuse the received properties. The *LUP* identified thousands of acres impaired by past mining activities, all of which required physical remediation before reuse could occur. As of today, EC has reclaimed 2,000 acres of that damaged land, which is now

available for or already in constructive use across industrial, commercial, residential, and recreational sectors. EC has also worked to mitigate AMD in area watersheds. Over \$47.7 million has been invested to date. All projects trace back to EC's overarching mission, one that seeks a more livable community now, and clears the way for positive, progressive change for future generations.

Site Description and Proposed Scope of Work

Bliss Bank is a 200-acre area that extends into three municipalities: the City of Nanticoke, Hanover Township, and Newport Township. It is located along Middle Road. Luzerne County Community College is across the street, and two sides of the Hanover Section of Nanticoke abut it. An access road will connect the area to the final roundabout of the new South Valley Parkway.

The site, previously owned by the Blue Coal Corporation, had been deep mined and strip-mined, as well as used to hold mine waste. The property was abandoned at the company's bankruptcy and left in a completely degraded condition with towering culm banks and deep, water-filled pits. Espy Run, which originally flowed through the site, was obliterated by mining activities. The banks, furthermore, are a chief producer of AMD. AMD forms through the interaction of pyritic minerals found in mine waste with oxygen and water. When the three combine, sulfuric acid and dissolved iron result. In the culm banks, every time rainwater or snowmelt seeps through the pile, the process is triggered. The runoff then drains into nearby streams and the watershed. The site also invites illegal dumping, trespassing by off-road vehicles, and other illicit behaviors like vandalism, drug use, and on occasion, fires.

Because of its size and location, Bliss Bank was identified as an important tract in EC's efforts to spur environmental and economic revitalization in the region. Extensive progress has already been made in reclaiming the site, which has been supported by six USEPA Brownfields Cleanup grants, two Growing Greener grants from the Pennsylvania Department of Environmental Protection (PADEP), and two AML Pilot Program awards from PADEP's Bureau of Abandoned Mine Reclamation (BAMR) through the Office of Surface Mining and Reclamation Enforcement (OSMRE). Additional awards have been made for reconstruction of Espy Run.

This ABCA, written as part of the grant application requirements for another Brownfields Cleanup grant, is for reclamation of another portion of the Bliss Bank, located to the east of the Phase III site and moving across Wilkes-Barre Mountain in an easterly direction. A map depicting the general location of the Phase V project is included as Appendix A. This ABCA has been made available for public review.

Cleanup Objectives

The objectives of the Bliss Bank Reclamation project are:

1. Reduction of nonpoint source pollution (sediment, AMD) in the watershed;
2. Improvement of wildlife habitat;
3. Recovery of the site for community benefit (e.g., safety, aesthetic, economics).

These goals are consistent with EC's mission, the LUP, and ongoing work. Moreover, they align with goals, recommendations, and regulations of frequent partners of Earth Conservancy, such as USEPA, PADEP, PADEP BAMR, OSMRE, and the U.S. Army Corps of Engineers (USACE).

SUMMARY OF PREVIOUS INVESTIGATIONS

In 1993, prior to Earth Conservancy's purchase of the Blue Coal Corporation estate, all property

underwent a field assessment by Resource Technologies Corporation. The study identified the Bliss Bank tract as “refuse banks” that were part of a former strip mine and mine dump area. According to the *Soil Survey of Luzerne County* (1981) by the U.S. Department of Agriculture, Strip mine (Sm) soils are a “nearly level to very steep mixture of the bedrock and unconsolidated soil and rock material through surface mining to expose anthracite coal. Runoff is slow to very rapid, and the hazard of erosion is moderate to severe. Most areas are extremely acid.”¹ Mine dump soils are generally steep, roughly graded, piles of mine waste material. Strip mine and mine dump areas are not considered to be comprised of a hazardous material. The Phase V of the Bliss Bank project is almost wholly within the Strip mine/Mine dump soils.

In 2005, an Environmental Site Assessment (ESA) was completed by USACE for the Nanticoke Creek watershed, which includes Bliss Bank, as part of its work with PADEP, PADEP BAMR, and EC in developing the *Detailed Project Report and Integrated Environmental Assessment of the Nanticoke Creek Watershed*, under Section 206 – Ecosystem Restoration. Again, the report indicated much of the area is covered by Mine dump soils. The limits of disturbance for this project are almost wholly within the Mine Dump soils. Based on the USACE study, no recognized environmental conditions were identified that would limit potential future uses.

In 2011, Pennsylvania Tectonics, Inc., completed a Phase I ESA for the Bliss Bank site in preparation for a Brownfields Cleanup application to USEPA. This ESA indicated the majority of the area is covered by Strip mine soils. According to the *Soil Survey of Luzerne County* (1981) by the U.S. Department of Agriculture (USDA), strip mine soils are a “nearly level to very steep mixture of the bedrock and unconsolidated soil and rock material through surface mining to expose anthracite coal. Runoff is slow to very rapid, and the hazard of erosion is moderate to severe. Most areas are extremely acid.”² Areas of mine dump, mine wash, urban land, and cut and fill land are also included in strip mine areas. There were no ongoing or anticipated environmental enforcement actions related to the site. The report recommended no Phase II ESA need be performed.

In 2018, LaBella Associates, P.C., completed a Phase I ESA in preparation for continuing work on Bliss Bank and for future work on the Truesdale Bank (approximately 697 mine-scarred acres). Similar to previous reports, the property was characterized primarily as Strip mine and Mine dump soils. The authors stated no RECs, CRECs, or HRECs were related to the site, and that it does not pose a significant environmental risk. No Phase II ESA was recommended.

In December 2018, in lieu of a Phase II ESA, PADEP BAMR provided a written statement affirming EC’s plans for reclamation for the Bliss Bank area. Actions, such as

- extensive earthwork to achieve stable, developable grades;
- establishment of appropriate stormwater best practices;
- importation of topsoil and seeding;
- extension of a planned access road; and
- extension of nearby utilities

were cited as appropriate steps to address environmental and reuse concerns.

¹ Bush, R.D. (1981). *Soil Survey of Luzerne County, Pennsylvania*. Washington, D.C.: U.S. Department of Agriculture Soil Conservation Service in Cooperation with The Pennsylvania State University College of Agriculture and the Pennsylvania Department of Environmental Resources State Conservation Commission.

² Bush, R.D. (1981). *Soil Survey of Luzerne County, Pennsylvania*. Washington, D.C.: U.S. Department of Agriculture Soil Conservation Service in Cooperation with The Pennsylvania State University College of Agriculture and the Pennsylvania Department of Environmental Resources State Conservation Commission.

SITE ASSESSMENT FINDINGS

As noted in the 2011 and 2018 Phase I ESAs, no RECs are present on the Bliss Bank site. Consequently, this ABCA addresses environmental, safety, social, and economic concerns linked to the property – i.e., the broader health impacts that brownfields may pose to a community, which include:

- **Environmental Health:** Potential environmental dangers can be biological, physical, or chemical, and can be the result of site contamination, groundwater impacts, surface runoff, migration of contaminants, or wastes dumped on site.
- **Safety:** Abandoned and derelict structures, open foundations, other infrastructure or equipment that may be compromised due to lack of maintenance, vandalism, deterioration, controlled substance contaminated sites, or abandoned mine sites may all pose safety risks.
- **Social and Economic Factors:** Blight, crime, vagrancy, reduced social capital or community ‘connectedness’, reductions in the local government tax base and private property values that may reduce social services are all social and economic problems sometimes created by brownfields.

Bliss Bank presents many of the problems identified above. When Blue Coal closed its doors, its works were abandoned entirely. The mine spoils – like found at Bliss Bank – are particularly troublesome. The loosely-piled rocks, some acres-wide and stories-high, are the remnants of the mining process: cast-off, low-energy fragments of shale, sandstone, and coal. Due to their high acidity and elevated temperatures, little vegetation can survive.³ This increases their instability, as they are already prone to slumping, erosion, or complete slope failure. Large pits also remain, and are continually filled with stagnant water – an increasing concern due to the West Nile and Zika viruses.^{4,5}

The culm banks are also a key contributor to AMD.⁶ AMD forms through the interaction of pyritic minerals found in mine waste with oxygen and water. When the three combine, sulfuric acid and dissolved iron result. When rainwater or snowmelt seeps through the culm banks, the process is triggered. The runoff then drains into nearby streams and leaches into the watershed. Because of the immensity of the spoils, the acid produced far exceeds what can be processed naturally. What’s more, the leaching “can last hundreds, even thousands, of years” (p. 10).⁷ As a result, waters of local waterways show elevated concentrations of metals and a lower than normal pH, both of which can seriously impair water quality. AMD makes the water more than impotable; it also coats streambed surfaces, destroys habitat, and poisons aquatic life.⁸ AMD affects the entire ecology of the ecosystem, in sections rendering waterways “biologically dead.”

Bliss Bank also lessens residents’ quality of life. The mountainous piles of spoil are a form of social blight, attracting activities that underscore their neglected state. Despite ongoing efforts to combat it, trespassing is frequent. Illegal dumping is common, evidenced by ever-returning piles of debris. So too is trespassing by ATVs, which becomes rampant on weekends, bringing with them noise, vandalism, injuries, drug use, gunshots, and fires. Livability in the area is challenged. Safety, pride, and sense of community all decline.⁹ With environmental degradation heightening pessimism, the area is devalued further.

³ Cornwell, S.M. (1971). Anthracite Mining Spoils in PA: Spoil Classification & Plant Cover Studies. *Journal of Applied Ecology*, 8(2), 401-409.

⁴ Luzerne County Gets Grant for [West Nile] Virus. (2015, May 2). *Times Leader*, p. 2A.

⁵ Pennsylvania to get federal funding to fight the Zika virus. (2016, July 21). *The Citizens’ Voice*.

⁶ Jennings, S.R., Neuman, D.R., & Blicher, P.S. (2008). *Acid Mine Drainage and Effects on Fish Health and Ecology: A Review*. Bozeman, MT: Reclamation Research Group.

⁷ Da Rosa, C.D., Lyon, J.S., & Hocker, P.M. (1997). *Golden Dreams, Poisoned Streams*. Washington, D.C.: Mineral Policy Ctr.

⁸ Jennings, et al.

⁹ Vacant Properties Network. *Meanings of Blight*.

FORECASTED CLIMATE CONDITIONS

According to the U.S. Global Change Research Program, climate trends for the northeast region of the United States include “heat waves, coastal flooding, and river flooding [that] will pose a growing challenge to the region’s environmental, social, and economic systems. This will increase the vulnerability of the region’s residents, especially its most disadvantaged populations.”¹⁰ Some of these factors, most specifically increased precipitation that may affect flood waters and stormwater runoff, are most applicable to the cleanup of the Bliss Bank site.

According to FEMA Flood Zone Map 42079C0365E (11/02/12), the Phase V site is located entirely in Zone X, which is outside the 0.2% annual chance floodplain. Minimal flooding is expected. A changing climate may result in more frequent and intense precipitation events, which could generate localized stormwater impacts. However, given the elevation of the project, its inclusion of appropriate stormwater mitigation features, and its proposed reuse, changing climate conditions are not likely to affect the site.

APPLICABLE LAWS, REGULATIONS, AND STANDARDS

In consideration of current and future uses of the Bliss Bank site, cleanup plans will provide for adequate protection of human health and the environment. EC and its procured engineers/contractors will adhere to all applicable local, state, and federal laws, regulations, and guidance in relation to brownfields and environmental remediation, including, but not limited to, the following.

Laws and Regulations

- Bliss Bank has not been identified by NPL, nor is under CERCLA or RCRA orders. Furthermore, EC is not potentially liable for contamination under CERCLA §107, as stated in the Deed of Sale from the Trustee in Bankruptcy for the Blue Coal Corporation. All Appropriate Inquiries (AAI) were conducted prior to sale. EC is considered an Innocent Landowner (ILO) and is not potentially liable for AMD pollution originating at the site.
- No historic sites are on or eligible for the National Register of Historic Places for Bliss Bank.
- In accordance with the Endangered Species Act, a survey of threatened and endangered species was undertaken. No threatened or endangered species are known to inhabit the site.
- Laws and regulations applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, state environmental law, and local municipality by-laws. Federal, state, and local laws regarding procurement of contractors for this cleanup will be followed.
- Prior to construction, all appropriate permits will be obtained. This includes submission and approval of an Erosion and Sediment (E&S) Control Plan to the Luzerne Conservation District (LCD). Upon approval of the E&S plan, a National Pollutant Discharge Elimination System permit will be issued.
- During construction, the contractor will adhere to all federal, state, and local rules and regulations relating to the Occupational Safety and Health Administration, including monitoring the site for hazardous conditions. The construction contract will require the contractor to immediately notify EC and the project engineer if a hazardous environmental condition is encountered.

¹⁰ U.S. Global Change Research Program. (2014). Key Messages about the Northeast. *National Climate Assessment*. www.globalchange.gov/explore/northeast

- Because no hazardous substances have been identified at the project site, institutional controls, restrictions, and/or compliances will not be required.

Cleanup Oversight

To ensure compliance with regulatory requirements and project goals, EC will provide project management, administrative services, and technical expertise during work. The selected project engineer will also assist in these roles, including periodic site visits to monitor progress and adherence to plans. Additional inspections will be performed by the LCD and PADEP to verify regulatory compliance and ensure any inconsistencies are immediately addressed.

Documentation and Reporting

Phase V of the Bliss Bank Reclamation cleanup will comply with all USEPA Brownfields Program requirements (e.g., information repository, public comment, ABCA, cleanup oversight, etc.). EC will be responsible for all documentation and reporting.

EVALUATION OF CLEANUP ALTERNATIVES

To address the brownfield conditions at the site, three alternatives were considered for the reclamation of Bliss Bank, Phase V. To satisfy USEPA requirements, the effectiveness, implementability, and cost of each alternative must be considered prior to selecting a recommended cleanup alternative.

Alternative #1 | No Action: Alternative #1 leaves the site in its existing condition. No mitigation of environmental damage would occur, nor would issues related to safety, aesthetics, flooding, or AMD be addressed. Productive reuse of the site would be unfeasible. In short, this alternative would neither meet EC's stated objectives for the project, nor conform to EC's mission.

Alternative #2 | Reclamation of ±30 Acres: Alternative #2 involves reclamation of ±30 acres of the Bliss Bank site with consideration of future development. Construction would involve regrading of mine spoils to stable grades; elimination of unsafe slopes; placement of topsoil; and subsequent seeding for a grass meadow. This alternative will reduce the velocity of surface water runoff to help prevent erosion and will reduce the volume of water that comes into contact with the exposed culm, thereby reducing contributions to AMD production. Stormwater management features would be constructed with future development in mind in order to minimize disturbances later on. In addition, an access road extension and tie-ins to local utilities would be completed.

The proposed design and budget estimate for Alternative #2 are provided in Appendix B. This alternative will improve safety, environmental, and aesthetic conditions at the site. It will also take into account and integrate with reclamation work already underway at Bliss Bank, Phase III, and allow for the fullest reuse of the site.

Alternative #3 | Reclamation of ±50 acres: Alternative #3 involves reclamation of ±50 acres of the Bliss Bank site. Construction steps would be the same as Alternative #2, with the difference of extending excavation/grading activities further south, encroaching on Wilkes-Barre Mountain. Again, as with Alternative #2, Alternative #3 will improve safety, environmental, and aesthetic conditions at the site. It will also maximize the amount of land available for redevelopment. The design and budget estimate for Alternative #3 are included as Appendix C.

Recommended Cleanup Alternative

After review of remedial alternatives, the recommended alternative is **Alternative #2, Reclamation of ±30 acres**. Alternative #1 cannot be recommended since it does not address site risks and impacts, and prohibits site reuse. Alternative #3, although it would reclaim spoil material and create a larger development pad, cannot be recommended because it

- Increases expenses;
- Cuts into natural areas of mountainside;
- Raises the elevation of the created pad higher than other pads within the area, potentially restricting combination of sites;
- Raises the pad substantially higher than the access road designed as part of Phases III/IV, potentially restricting some truck use.

Alternative #2 will have the desired environmental, safety, and aesthetic benefits, as well as create a pad large enough to interest potential developers and suitable for transportation and infrastructure links. This makes the Alternative #2 the most cost-effective choice given the funds available.

ADDITIONAL CONSIDERATIONS

Public Participation

Public comments on the proposed reclamation of Bliss Bank, Phase V, are important to the cleanup process. A final cleanup method will be selected only after the public is given adequate time to review and comment on the ABCA and all comments have been reviewed and responded to appropriately.

EC will solicit input from the public on this ABCA by 1.) posting a copy of the ABCA on EC's website; 2.) notifying the public of the ABCA's availability on social media; and 3.) publishing a public notice inviting input on the ABCA at a public meeting. Modifications to the ABCA may be made on the proposed alternative based on new information or comments received from the public.

Limitations and Contact

The contents and format of this report are based upon information available and are comparable to cleanup planning documents developed and approved in connection with previous USEPA Region 3 Brownfields Grant programs. This report is a work of opinion; therefore, we cannot offer any warranty regarding our conclusions, advice, or recommendations.

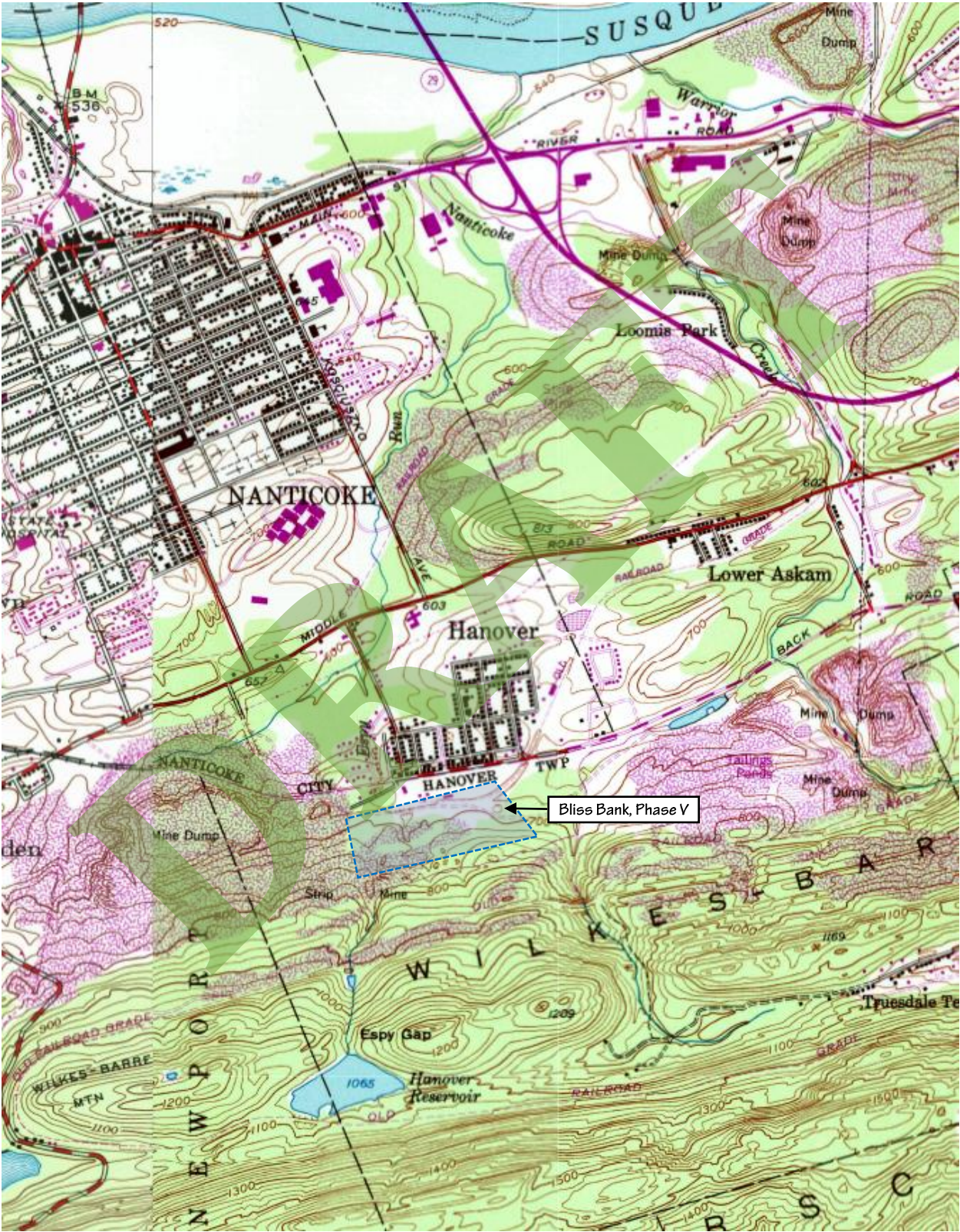
Questions or comments regarding the content of this ABCA report are welcome and should be directed to the undersigned at 570.823.3445 or m.dziak@earthconservancy.org.

EARTH CONSERVANCY



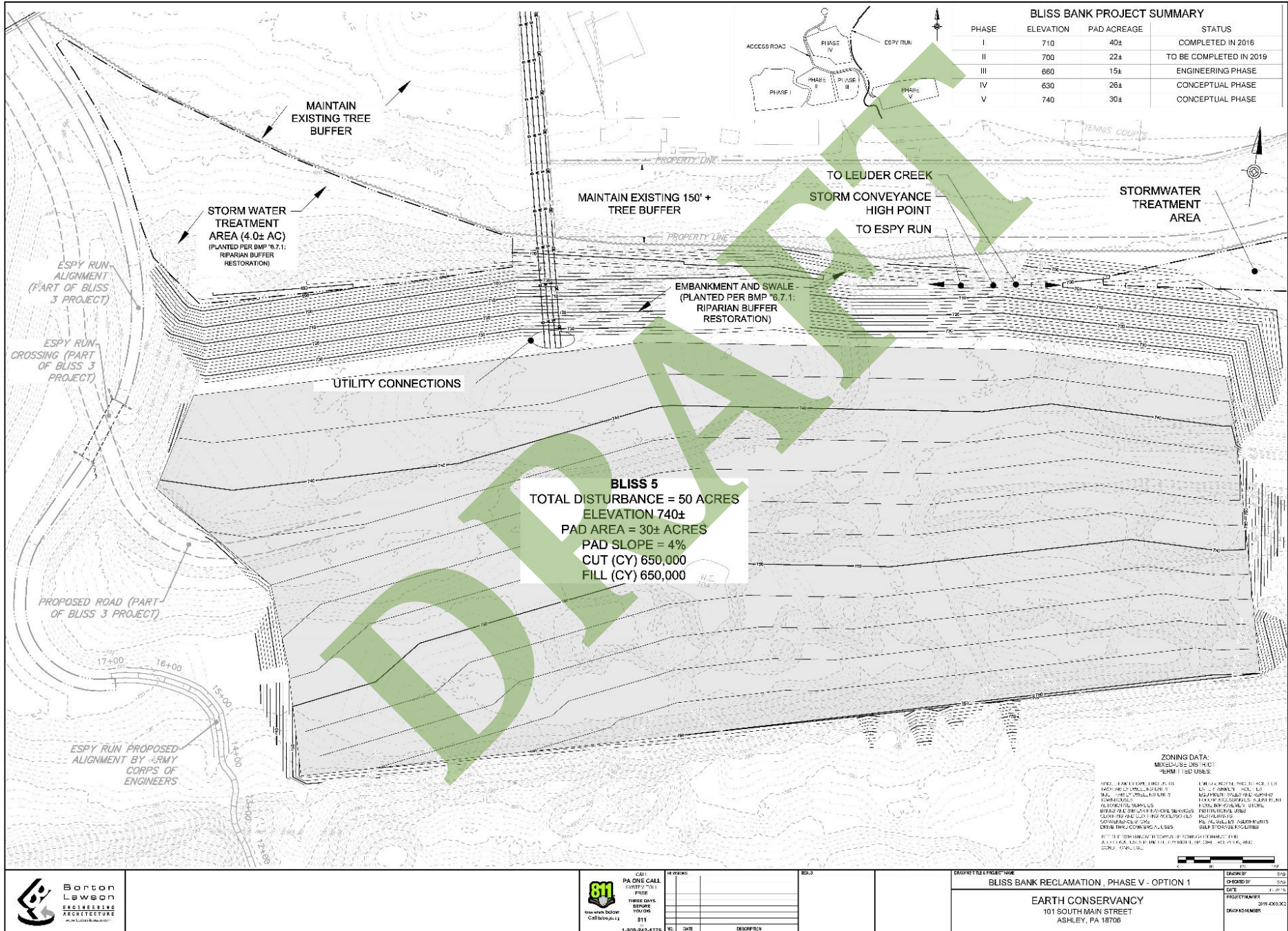
Michael Dziak
President & CEO

Bliss Bank, Phase V
Project Area



Alternative #2 | Reclamation of ±30 Acres

Project Design



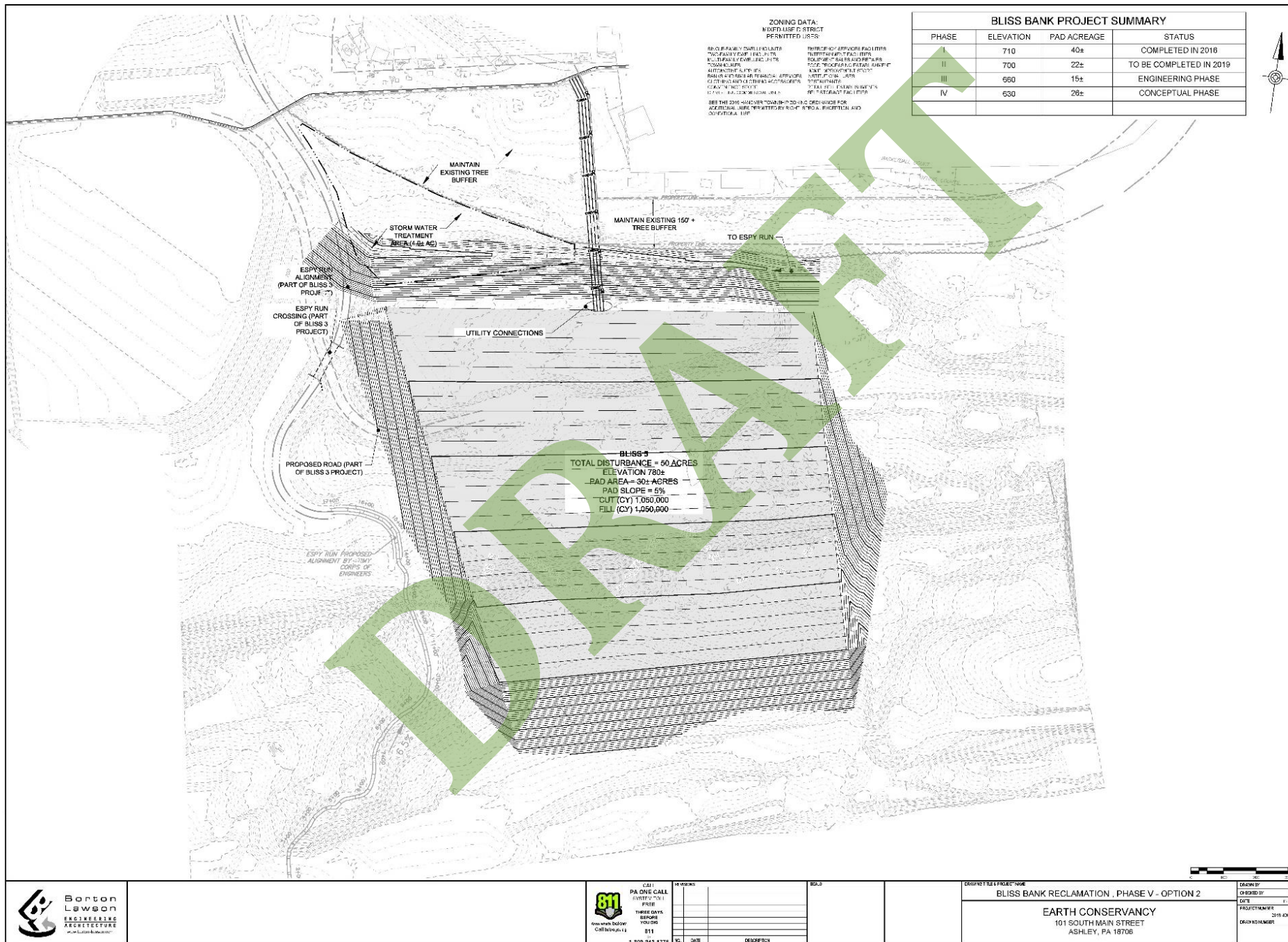
Alternative #2 | Reclamation of ±30 Acres

Estimated Budget

Borton-Lawson Engineering, Inc.		Rough Order Of Magnitude		
Earth Conservancy Hanover Township, Luzerne County		Stage of Design: Conceptual	BLE Proj. No.	2017.3529.001
			Calculated By: SAS	
			Date: December 22, 2018	
Bliss Bank Reclamation, Phase V - Option 1				
Description	Units	Quantity	Unit Price	Total Price
Pad Preparation and Access Road				
General Conditions (5%)	LS	1	\$120,165.00	\$120,165.00
Mobilization and Demobilization (4%)	LS	1	\$96,132.00	\$96,132.00
E&S Measures	LS	1	\$400,000.00	\$400,000.00
Clear and Grub	AC	50	\$1,200.00	\$60,000.00
Excavation - Cut	CY	650000	\$0.75	\$487,500.00
Excavation - Fill	CY	650000	\$0.75	\$487,500.00
Topsoil 6" Depth- Material provided by owner, transported and spread by contractor	SY	250000	\$1.60	\$400,000.00
Landscape Restoration (Planted Per Bmp "6.7.1: Riparian Buffer Restoration)	AC	15	\$12,500.00	\$187,500.00
Seed and Mulch Meadow Mix	AC	50	\$1,650.00	\$82,500.00
Subtotal:				\$2,321,297.00
Utility Connections				
10" Ductile Iron Water Pipe	LF	850	\$115.00	\$97,750.00
10" Water Gate Valve & Valve Box	EA	2	\$2,500.00	\$5,000.00
Fire Hydrant	EA	1	\$7,500.00	\$7,500.00
8" Sch 80 PVC Sewer Pipe	LF	850	\$90.00	\$76,500.00
Sanitary Sewer Manholes	EA	3	\$4,500.00	\$13,500.00
6" PE Gas Main	LF	850	\$85.00	\$72,250.00
6' Gas Valve & Valve Box	EA	2	\$1,500.00	\$3,000.00
3 PH Electric Service (Overhead Service)	LF	850	\$18.00	\$15,300.00
Pavement Restoration	LS	1	\$7,500.00	\$7,500.00
Subtotal:				\$298,300.00
Contingency (15%)				\$392,939.55
Design and Permitting	LS	1	\$225,000.00	\$225,000.00
Total				\$3,237,536.55

Alternative #3 | Reclamation of ±50 Acres

Project Design



Alternative #3 | Reclamation of ±50 Acres

Estimated Budget

Borton-Lawson Engineering, Inc.		Rough Order Of Magnitude		
Earth Conservancy Hanover Township, Luzerne County		Stage of Design: Conceptual	BLE Proj. No.	2017.3529.001
			Calculated By: SAS	
			Date: December 22, 2018	
Bliss Bank Reclamation, Phase V - Option 2				
Description	Units	Quantity	Unit Price	Total Price
Pad Preparation and Access Road				
General Conditions (5%)	LS	1	\$148,290.00	\$148,290.00
Mobilization and Demobilization (4%)	LS	1	\$118,632.00	\$118,632.00
E&S Measures	LS	1	\$400,000.00	\$400,000.00
Clear and Grub	AC	50	\$1,200.00	\$60,000.00
Excavation - Cut	CY	1050000	\$0.75	\$787,500.00
Excavation - Fill	CY	1050000	\$0.75	\$787,500.00
Topsoil 6" Depth- Material provided by owner, transported and spread by contractor	SY	250000	\$1.60	\$400,000.00
Landscape Restoration (Planted Per Bmp "6.7.1: Riparian Buffer Restoration)	AC	12	\$12,500.00	\$150,000.00
Seed and Mulch Meadow Mix	AC	50	\$1,650.00	\$82,500.00
Subtotal:				\$2,934,422.00
Utility Connections				
10" Ductile Iron Water Pipe	LF	850	\$115.00	\$97,750.00
10" Water Gate Valve & Valve Box	EA	2	\$2,500.00	\$5,000.00
Fire Hydrant	EA	1	\$7,500.00	\$7,500.00
8" Sch 80 PVC Sewer Pipe	LF	850	\$90.00	\$76,500.00
Sanitary Sewer Manholes	EA	3	\$4,500.00	\$13,500.00
6" PE Gas Main	LF	850	\$85.00	\$72,250.00
6' Gas Valve & Valve Box	EA	2	\$1,500.00	\$3,000.00
3 PH Electric Service (Overhead Service)	LF	850	\$18.00	\$15,300.00
Pavement Restoration	LS	1	\$7,500.00	\$7,500.00
Subtotal:				\$298,300.00
Contingency (15%)				\$484,908.30
Design and Permitting	LS	1	\$225,000.00	\$225,000.00
Total				\$3,942,630.30

Community Notification Ad | Times Leader | Sunday, January 6, 2019

Proof of Publication

THE TIMES LEADER

(Under Act of No. 587, approved May 16, 1929)

STATE OF PENNSYLVANIA,
COUNTY OF LUZERNE

SS:

Kerry Mischavage, being duly sworn according to law, deposes and says that he/she is the bookkeeper of The Times Leader, a daily newspaper published in the City of Wilkes-Barre, County and State aforesaid, by Civitas Media, LLC, that said The Times Leader was established in 1939, and that the printed notice or publication hereto attached is exactly as printed in the regular edition of The Times Leader on the following date(s):

January 6, 2019

LEGAL NOTICE

In accordance with the U.S. Environmental Protection Agency's community involvement requirements for grant proposals, Earth Conservancy (EC), a private 501(c) (3) nonprofit corporation, located in Ashley, Luzerne County, PA, announces the availability of a draft Analysis of Brownfields Cleanup Alternatives (ABCA) that has been prepared for reclamation of the site known as Bliss Bank, Phase V, located in Hanover Township, Luzerne County, PA. The ABCA summarizes environmental conditions on the site, evaluates cleanup alternatives, and describes cleanup plans.

A copy of the draft ABCA is available for review during business hours at EC's offices or for download at www.earthconservancy.org, beginning on Sunday, January 6, 2019. Questions or comments from the public are welcomed by calling 570-823-3445 or emailing e.hughes@earthconservancy.org. A public meeting to discuss the draft ABCA and proposed project will be held Monday, January 14, 2019, at 9:00am, at 101 South Main Street, Ashley, PA 18706. Public comments on the draft ABCA and proposed cleanup will be accepted.

deposes and says that The Time Leader is a daily newspaper on and that neither the affiant nor The Times Leader is subject matter of the aforesaid notice of advertisement, tions in the foregoing statement as to time, place and ation are true.

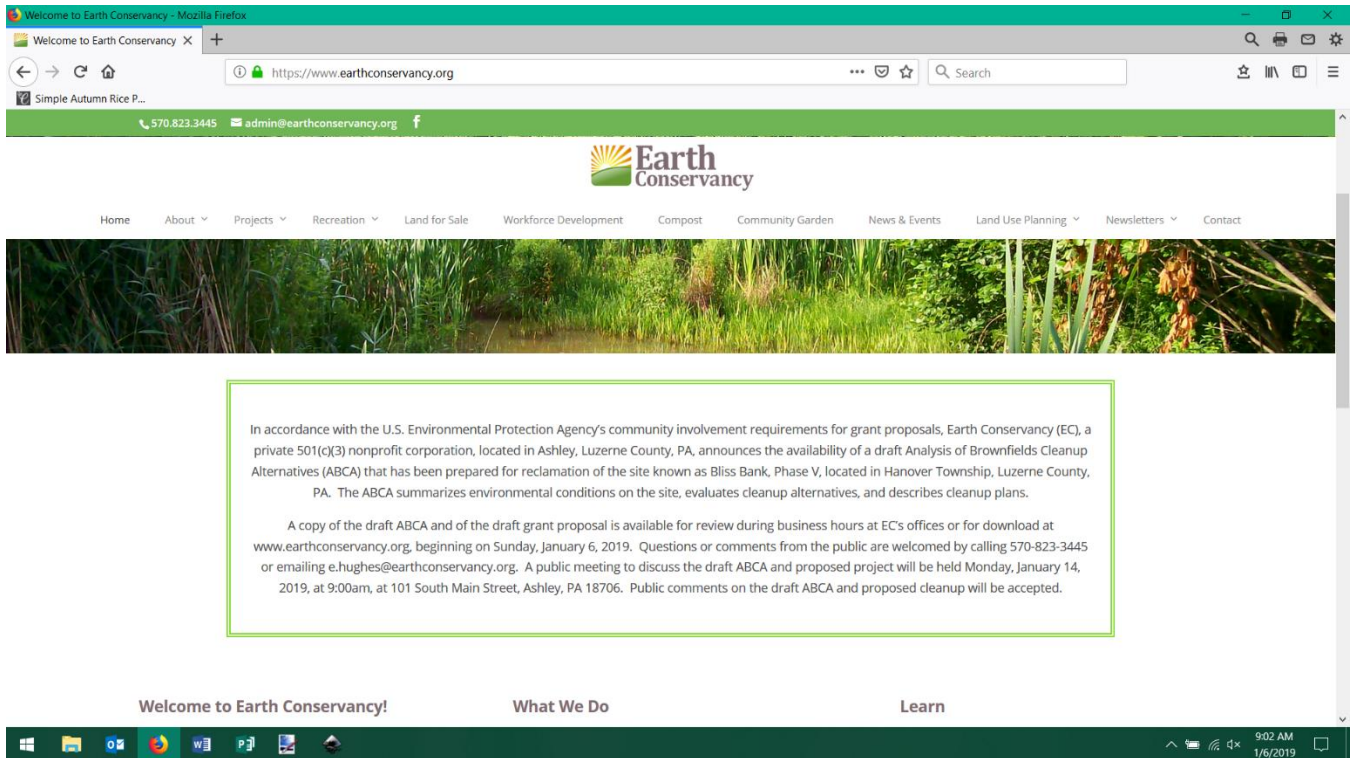
Sworn to before me this 14 day
of January, 2019.

Lauren Scott

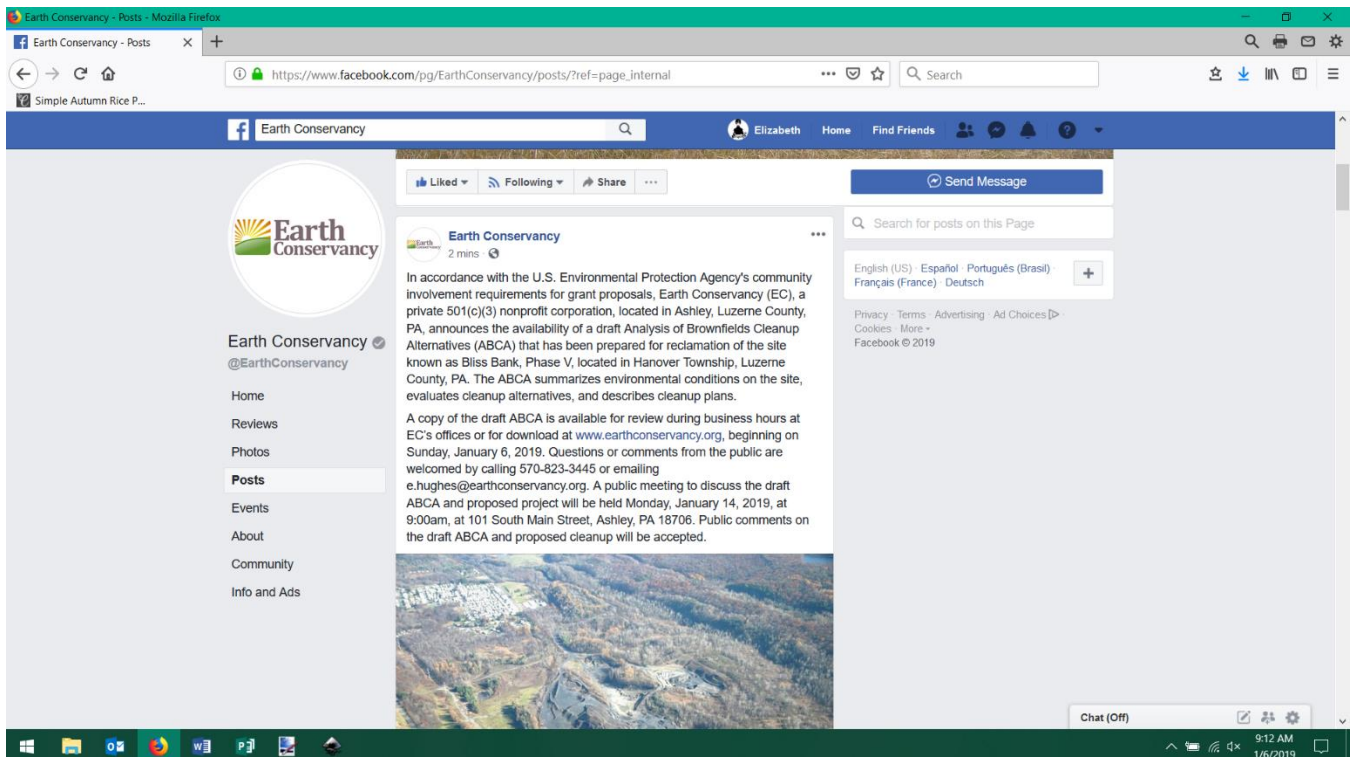
Commonwealth of Pennsylvania - Notary Seal
Lauren Scott, Notary Public
Luzerne County
My commission expires January 12, 2022
Commission number 1324391
Member, Pennsylvania Association of Notaries

Community Notification Online | January 6 – January 30, 2019

www.earthconservancy.org



www.facebook.com/EarthConservancy



Public Comments to Draft ABCA (In-office)



Dedicated to Mine Land Reclamation, Conservation, & Economic Development in the Wyoming Valley

Public Comments
U.S. EPA Brownfields Cleanup Grant Application & ABCA

Espy Run Stream Restoration, Segment C

Directed to Earth Conservancy between October 6 and October 27, 2017

[illegible]

Public Comments to Draft ABCA (Electronic)

The screenshot shows the Facebook profile of Earth Conservancy, an Environmental Conservation Organization. The page features a cover photo of a mountainous landscape and a profile picture with the Earth Conservancy logo. The left sidebar includes navigation links: Home, Reviews, Photos, Posts, Events, About, Community, Info and Ads, and a 'Create a Page' button. The main content area displays a post with a landscape image and the text 'Earth Conservancy Environmental Conservation Organization'. Below the post, there are two comments from Zachary Zuzzinsky and Paul Lumia, both of which have been replied to by Earth Conservancy. The right sidebar shows a 'Send Message' button, a list of pages liked by this page (Jeddo Coal Company, Couch Potato, SimpleTire.com, Environmental Conservation in Ashley, Pennsylvania), and a list of pages liked by this page (Outreach - Center for..., Nescopeck State Park, Pennsylvania Depart...). The bottom of the page shows the Facebook footer with links to Privacy, Terms, Advertising, Ad Choices, Cookies, and More, and a copyright notice for Facebook © 2019.

ps://www.facebook.com/EarthConservancy/?view_public_for=166169056743559

What Your LinkedIn Pr... | C A forgotten 200-year... | E 8 Time-Management... | Environmental Career... | 10 Impressive Questio... | 50 Ways To Live On Y...

Earth Conservancy

Elizabeth Home Find Friends

Send Message

Jeddo Coal Company Mining Company Like

Couch Potato Local Service Like

SimpleTire.com Automotive Service Like

Environmental Conservation in Ashley, Pennsylvania

Pages Liked by This Page

Outreach - Center for ... Like

Nescopeck State Park Like

Pennsylvania Depart... Like

English (US) · Español · Português (Brasil) · Français (France) · Deutsch +

Privacy · Terms · Advertising · Ad Choices · Cookies · More · Facebook © 2019

Earth Conservancy
Environmental Conservation Organization

2 Comments 2 Shares

Like Comment Share

Most Relevant

Write a comment...

Zachary Zuzzinsky

Like Reply · 3w

Earth Conservancy Thanks for your comment, Zachary Zuzzinsky. Is there anything about the project we can answer for you?

Like Reply · 2d

Zachary Zuzzinsky I just hate to see our mining history obliterated. I know, I know...it pollutes. But it looks cool.

Like Reply · 1d

Earth Conservancy We hear you. The banks are unquestionably a reminder of the people and the industry that supported the Wyoming Valley as a whole.

Like Reply · 22h

Write a reply...

Paul Lumia Great job ECI Keep up the good work!!!

Like Reply · 3w

Write a comment...



Bliss Bank Reclamation, Phase V | USEPA Grant Application and Draft ABCA

Public Meeting | January 14, 2019 | 9:00 AM | EC Offices

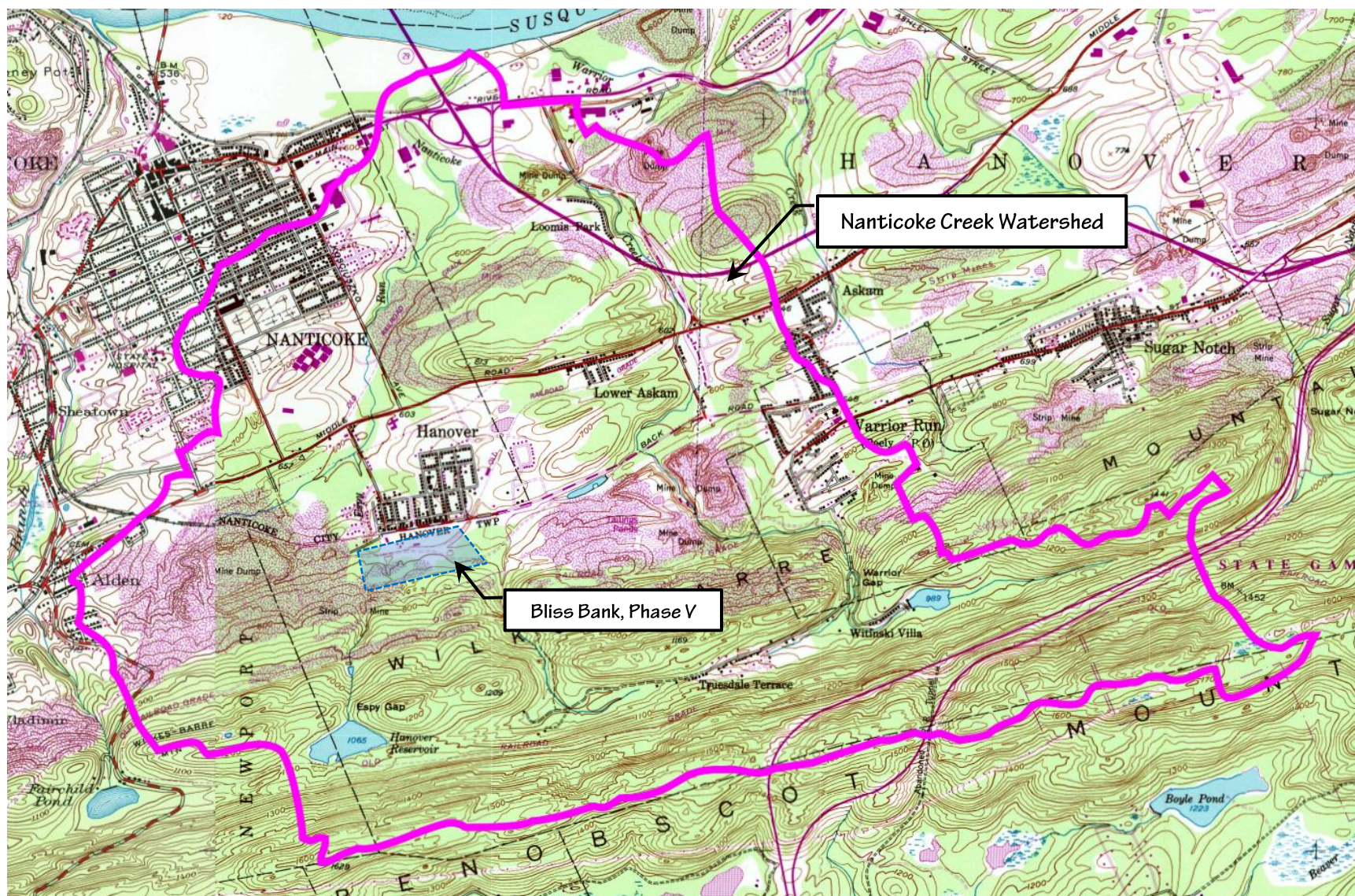
Name	Address	Email

No attendees

Summary/Notes of Public Meeting | Monday, January 14, 2019 at 9:00AM

Areas Affected by Project | Nanticoke Creek Watershed

Includes the City of Nanticoke, Hanover Township, Newport Township, and Warrior Run Borough



Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

01/30/2019

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Earth Conservancy

* b. Employer/Taxpayer Identification Number (EIN/TIN):

* c. Organizational DUNS:

8073657050000

d. Address:

* Street1:

101 South Main Street

Street2:

* City:

Ashley

County/Parish:

Luzerne

* State:

PA: Pennsylvania

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

18706-1506

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Dr.

* First Name:

Elizabeth

Middle Name:

Williams

* Last Name:

Hughes

Suffix:

Title:

Director of Communications

Organizational Affiliation:

Earth Conservancy

* Telephone Number:

5708233445

Fax Number:

5708238270

* Email:

e.hughes@earthconservancy.org

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

* 12. Funding Opportunity Number:

EPA-OLEM-OBLR-18-07

* Title:

FY19 GUIDELINES FOR BROWNFIELDS CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

1235-2019.EPA.BlissV-Affected Areas.pdf

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Bliss Bank Reclamation, Phase V

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:**

* a. Applicant

8

* b. Program/Project

8

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

10/01/2019

* b. End Date:

09/30/2022

18. Estimated Funding (\$):

* a. Federal	500,000.00
* b. Applicant	100,000.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	600,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**☐ a. This application was made available to the State under the Executive Order 12372 Process for review on☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.☐ c. Program is not covered by E.O. 12372.*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

Dr.

* First Name:

Elizabeth

Middle Name:

Williams

* Last Name:

Hughes

Suffix:

* Title:

Director of Communications

* Telephone Number:

5708233445

Fax Number:

5708238270

* Email:

e.hughes@earthconservancy.org

* Signature of Authorized Representative:

Elizabeth W Hughes

* Date Signed:

01/30/2019